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ALIMENTATION IN PHTHISIS.

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After all is said and done, the most important feature in the management of a case of phthisis, is the maintenance of nutrition. We must endeavor not alone to balance current waste by repair, but also to make up previous waste by an excess of aliment above daily needs. In order to enable this excess of aliment to be appropriated and utilized, our hygienic and medicinal treatment must aim to put the digestive tract in proper condition, to remove as far as possible any obstacle to the elaboration and assimilation of the products of digestion, and to favor the speedy elimination of all effete materials. To do this there must be a proper regulation of rest and of exercise; respiration must be aided by gymnastic exercises, forced respiration, inhalation of compressed air, and similar measures; and certain symptomatic and antiseptic medication must be instituted, which in the present article is not intended to be discussed. Independently of drugs, however, the stomach and intestinal canal may often be put in proper condition for digestion and absorption of the materials furnished by systematic drinking of hot water (half pint to one pint an hour before meals), or by what is known as *lavage*, i. e., washing the stomach. The aliments from which the greatest food is derived by the greatest number of patients are pre-eminently the animal members of the nitrogenous group, and of these, more especially, beef. It can be given cooked or raw, as may be found most palatable or most useful. It may simply be chopped finely and seasoned with pepper and salt, or various condiments; or it may be chopped finely, seasoned and made into cakes, which are then lightly browned on the gridiron; or it may be roasted or broiled, rare. It should never be well-done. Next to beef comes milk, then eggs, when the patient can digest them; mutton, poultry, fish and green vegetables, especially those of the leguminous group. Bread should be taken in moderation, and gluten bread, or that made from the whole wheat, is preferable. Farinaceous and starchy foods in general need not be avoided unless the form of indigestion present demands it, but they should be distinctly secondary to the nitrogenous materials; and the carbohydrates necessary should be sought in oils and fats, preferably from the animal kingdom. Inunctions with oil sometimes seem of service. The oil of gaultheria often furnishes an agreeable odor to disguise that of the oil employed for inunction. Sweetbreads are often valuable, both as aids to digestion and as food. Powders of beef as prepared by various pharmacists, and especially those that are predigested, such as Reed & Carnrick's Beef Peptonoids, are of great value, and are best given between meals, in milk. Of this preparation, I am in the habit of beginning with one teaspoonful in about four tablespoonfuls of warm milk, four times daily, and increasing the dose to a tablespoonful, as I find it well borne. Some patients prefer to take it in soup and at meal times; some

prefer it in cold milk, others in warm or cold water. It may advantageously be added to milk-punch or egg-nog. Nutritious soups of all kinds are of use, to vary the diet. To furnish the necessary fatty elements of food, oil dressings of salads, etc., will be advantageous. Butter should be used freely; and this use of it will often be found to avert the necessity of administering cod-liver oil. In fact, my own resort to cod-liver oil is extremely limited. Cream, when well digested, is of great service, and a tumblerful on retiring, with or without alcohol, will often be found to promote sleep, as well as to be of nutritive value. Alcohol has a positive nutritive value, especially in cases characterized by high temperature. The dosage and frequency must be regulated by circumstances. Usually a tumblerful of milk punch night and morning (with from half an ounce to an ounce or more of good whisky or good brandy in each tumblerful) will suffice. I have known, however, in two or three exceptional cases as much as a pint of whisky daily (in divided doses) to be taken for a limited time, with benefit. A claret glass of good Burgundy wine may be taken with the principal meal of the day. Wine of coca, if a reliable article is obtained, is often of benefit; from one to four or more wine glasses per diem being taken, according to the preparation and the indications. Various preparations of malt are often useful.

A phthisical patient should rarely go without food longer than three hours, and never for more than four hours, except during sleep. Three good set meals will suffice; but in the intervals the milk, milk-punch, cream, cream-punch, soup, beef-powder, beef-peptonoids, etc., should be taken. The physicians orders upon this point must be imperative, and the hours and quantities, as well as kinds of food, must be precisely stated. Of great importance is the glass of cream, or similar article, just before retiring; and when the patient goes to bed early, as he ought to, a glass of milk or of wine, according to circumstances, should be taken if he wakes during the night or early morning.

It is best to feed by natural methods, and when a sufficient quantity of food cannot be taken at one time, to increase the frequency of meals, rather than to overburden the digestive apparatus. In such cases, too, the condensed and predigested foods must be largely used. When milk is not well borne, it should be peptonized. Milk is sometimes best taken hot, sometimes cold. I know of no indication but experience. The manner of drinking it is often important. Patients frequently gulp a glassful down, precipitating it in an unfit state upon a disordered stomach, in which case a hard and tough coagulum is likely to form, which is digested with difficulty if at all. They should be directed to take it slightly warmed if possible, say to blood-heat, and to sip it slowly, so as to thoroughly incorporate it with the saliva. A little lime-water may be added if necessary; but usually the slow sipping, consuming ten minutes to a tumblerful of milk, will alone do away with all the bad results attributed to the "disagreement" of the milk.

I have seen astonishing improvement follow forced feeding by the means of the œsophageal tube (gavage) after Debove's method.

Two patients under my own care increased in weight nearly a pound *per diem*, in one case for two weeks (9 pounds increase, 6 pounds in the first week), and in the other for five days (4½ pounds increase;) but their repugnance to the method could not be overcome and it was perforce abandoned. Less rapid but equally steady gains may be obtained from superalimentation by less distasteful methods. Nevertheless when sufficient food cannot be taken in the ordinary manner, the tube should be promptly and unhesitatingly employed. In such cases, too, when practicable, a combination of the "rest treatment" with the gavage, would probably be most beneficial.

219 S. Seventeenth st.

SUMMARY OF THE DIAGNOSIS, PATHOLOGY AND TREATMENT OF PERFORATION OF THE APPENDIX VERMIFORMIS.*

BY J. M. F. GASTON, M.D., ATLANTA, GA.

The practical deductions from this inquiry, in regard to the concomitants of perforation of the appendix vermiformis, may be included under the following heads:

1. The primary disorder is dependent upon a local irritant, either mechanical, chemical or vital, inducing ulceration and disintegration at some point in its walls.

2. The modification in the tissues of adjacent parts depends upon the presence of a toxic exudation from its cavity, that ultimately leads to disorganization of structure.

3. Extension of the degenerating process depends upon the formation of the structures

*Abstract of a paper read before the American Medical Association.

with the fæcal matter, but may result from suppuration, or the automatic propagation of inflammation from one part to another.

4. Agglutination between the layers of peritoneum may shut in purulent accumulation, and thus limit the inflammatory action to a circumscribed area, so as to assume the nature of an abscess in that locality.

5. General peritonitis may be accompanied by extensive adhesions of the adjacent serous membranes, and followed by vital prostration and collapse, calling for the knife.

6. Septicæmia may occur from absorption of septic matter, independent of suppuration, and associated with a low form of fever, which ought to be treated by antiseptics and irrigation of the abdominal cavity by hot water.

7. When there are sufficient indications of perforation in the general symptoms, with pain and tenderness on pressure over the cæcal region, without signs of fluctuation, an exploratory puncture below the ilio-cæcal junction is warranted.

8. If there are reasonable grounds to believe that pus is present, or there is extravasation of fæcal matter, whether from the perforation of the cæcum or appendix, a free incision above Poupart's ligament should be carried down to those parts and drainage kept up afterwards.

9. In perforation of the appendix, associated with general peritonitis, an incision in the linea alba affords the best prospect of washing all the parts involved, and should be accompanied by thorough cleansing of the abdominal cavity, and especially the ilio-cæcal region.

10. The most efficient means of closing an opening in the cæcum is by Lember suture, while one in the appendix demands excision and ligation.

11. When perforation is suspected, washing out the abdomen, by the use of a syringe and two tubes, will assist in the diagnosis and treatment.

12. An early operation, with a doubtful diagnosis of perforation of the appendix, lessens the liability for a confirmation of it by a necropsy, and hence no time should be lost in awaiting developments.

—The Austrian government has appointed a committee to revise the pharmacopœia of that country, in order to bring it up to the level of the recent advances in science. The last (sixth) edition of the work was published in 1869.

THE THERAPEUTICS OF STIMULANTS.

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Read before the Atlantic County Medical Society, May 4th, 1887.

A notable revolution in the treatment and cure of disease seems threatening the permanence of old theories and practices. Weighed in the balance of new investigations, errors are being discovered and misconceptions corrected. By hygienic measures and careful regimen exclusively, abundant proofs are constantly being reported of the curability of disease. Instructors are making much of the basic facts of sanitation, and people in all classes are considering more and more ways and means promotive of health and pure living without physic. Harvard is looking forward to a Chair of Preventive Medicine, and the Woman's Medical College of Pennsylvania, will in the near future establish this branch; plans being now on foot for the purpose of raising the necessary funds. "The Chair to include" (so the announcement reads) "the scientific investigation of the conditions under which diseases originate and thrive; the thorough demonstration and practical application of the principles of hygiene, personal, domestic and public, and to bring this knowledge to bear upon the environment of individuals, classes and communities for the correction of conditions prejudicial to health."

The people are questioning as they never did before, and demanding to know why intoxicants are indispensable. It is said that the great and good men of the land, the leaders of public opinion, gravely study this intricate problem of the supposed necessity for alcoholic medication. With a higher intelligence daily rising to confront and question, it seems but the part of policy to say nothing of wisdom, not to dismiss with indifference and ridicule a subject which so profoundly disturbs the minds of the laity. Though our art still endeavors to hedge itself about with the bristling bayonets of exclusiveness, still resents questioning and prying eyes, and with mild scorn smiles at dictation and suggestion from the unanointed, yet each year the latter press closer to the sacred doors. England's people waited for twenty years, while her mentors tried to prove the boasted benefits of the cruel, immoral regulation laws; but at last the storm came, and last year the statute books were cleansed by

repealing them, and "rightly repealed," a brave gentleman said at the Sanitary Congress in England, last fall.

Dr. Richardson said to a class of students, "You must either stand above the masses or fall beneath them; sit with them you cannot. You must equip yourselves to become the leaders and teachers on all subjects that relate to their life and health." He further says, "All educated people are becoming scholars in natural science, physiological scholars especially, to whom two parts out of four of our art and mystery are revealed. One part out of four is preventive and personal, that is to say hygienic or sanative—a part of medicine which has become the property of all classes." Discussion seems to be in the very air. Surely it is the special prerogative of the physician to teach and lead not only in the sanitary conditions of the people, but in whatever has to do with the elevation of the race and the "great interests which are shaping its destinies."

In the light of the overwhelming testimony of the most distinguished practitioners of Europe, and a rapidly growing number in our own country, the intricacy of the question of the uses of alcohol in medicine becomes more apparent.

When entering upon the study of medicine the earnest, conscientious student, even if disposed to doubt the many virtues claimed for alcoholics, believes that to be loyal to the sacred cause he has espoused, he must be ready to yield all preconceived notions or prejudices not strictly in accordance with science. Besides, if disposed to question, what time there was to select one, from the great armamentarium of remedies to pursue with special inquiry? There was no time nor place on a crowded curriculum to weigh the *moral* aspects and evils, which to day so seriously engage the thought of the sanitarian.

"But the subject is influencing medical practice in the treatment of disease," said the Medical Health Officer, at the opening of the Sanitary Congress, held at York, England, last autumn. "We are arriving at a very different opinion in relation to the necessity for alcoholics from that formerly held. I think there is scarcely a disease for which we used to think alcohol necessary, that now we cannot treat equally well or better without. The question has come to the front, and we should do all we can for it."

One writer says, "I should like to know how many physicians administer alcohol on scientific principles. It requires a strong mental effort to throw off prejudices and the influence of appetite to take a purely scientific view of the use of alcohol."

The *Lancet* says: "The question is one for the scientific and thoughtful physician to discuss gravely, and medicine will not be without much authority, and let us repeat, responsibility, in its settlement."

The subject seems to be engaging more and more the serious thought of the most brilliant apostles of medicine. Dr. Pepper remarked in an address before the Medical Faculty of Maryland, "The rise of the so-called restorative medicine brought to a dangerous and absurd height the practice of indiscriminate stimulation and gorging in all forms of disease. The reaction against this extreme has set in. . . . The restoration of power can be accomplished by cautiously but thoroughly adapting the diet and hygiene to the altered state of nutrition, and thus having adjusted the physiological balance, direct remedies to actual conditions."

Dr. James Ridge, Physician to the London Temperance Hospital, says: "Hundreds of physicians order alcoholic liquors from habit, from ignorance of their real effects, from fashion, or from a desire to please, or not to offend their patients. Port wine is constantly being ordered when persons are recovering from various diseases; day by day they regain their strength, and the port wine gets all the credit of it, especially since each glass seems to diffuse a comfortable glow over the whole body. They forget that the process of recovery would have gone on without the port, and that hundreds and thousands of people do get well without it. They often ignore the fact that they are taking real tonics in addition. They are misled by the sensations which the alcohol causes; they do not know that it relaxes the blood-vessels instead of improving their tone; that it exhausts the heart by making it beat more rapidly to no profit. Hence, convalescence is actually more prolonged than it would otherwise be. Gentle exercise, regulated baths, good food, balmy sleep, are the true restoratives of the exhausted system, and no jugglery with alcohol can produce the desired effect. It is by its sedative action that it has obtained its position in public opinion. The relief that can be obtained by alcohol is delusive and dangerous."

These are bold assertions, unless the writer can substantiate them with actual proofs. It has been pertinently said, "Alcoholics are far more agreeable to most people than other remedies. The taste and exhilirating effects are pleasant. The patient comes with the

inquiry whether a little wine will not be advisable. The physician frequently yields, because it pleases the patient, when he does not doubt that some other remedy would be preferable. He is not besieged in this way to use any other remedy. No one comes to inquire whether it would be best for him to go on with strychnine or belladonna, but this fishing for an alcholic prescription is of almost daily occurrence, and is far too frequently successful." And he adds: "Many a man has shielded himself behind a physician's prescription."

A doctor's wife, a lady of rare intelligence, once said to me: "Doctors are more to blame than they are aware for this love of tippling. They do not like to worry with tired, nervous people, and they take the easiest and most pleasant way out of the difficulty by ordering one of the many so-called tonics, for instance Johann Hoff's extract of malt, with its more than twenty per cent. of alcohol; or beef, wine and iron, which is so welcome on account of its sherry."

I am reminded here of a case I had several years ago. A lovely, fresh-looking young woman, the mother of several beautiful children, a home-loving mother and faithful wife, devoted to her children, was beginning to run down in health, and as a pleasant tonic I ordered beef, wine and iron. She said, "Doctor, that is delightful medicine. I am glad when the time comes around to take it," and her eyes grew expressive. Two or three years later it was whispered to me that the lady indulged to intoxication in beers and brandy. And later on bills for whisky and brandy were alarming her husband, and causing unhappiness, for there were times when she was unfitted to care for home duties. I afterward learned that her father had been a drinking man, and she had inherited her taste from him. The ugly thought shot into my mind, did I awaken this by my beef, wine and iron? It was certainly not a pleasant reflection,—inherited appetite only waiting for the propitious opportunity to come to the front and take dominion.

Dr. R. Greene, in a paper read before a Boston medical society, said: "The laws of descent, by which depraved appetites are transmitted, are but little understood, and yet nothing can be more absurd than to suppose that physical deformity and debased mental qualities can be the result of sound physical health and normal conditions of mind. An inherited appetite for liquors may lie dormant for years, without giving the least indication of its presence; but let alcoholic liquors be taken even under the prescription of the physician, and the appetite, hitherto dormant, may be aroused and incited, and become difficult to control. We are largely the product of the past; our physical and mental conditions are in a great measure woven for us."

Statistics are ugly things when they are on the wrong side. Some medical writers seem to enjoy figures, and are forever drawing aside the veil that hides the scum of the back-yard of the nation, and in grim fashion pointing to the lunatics, idiots and monstrosities, which they assure us are the product of drunken ancestry, and in persistent tones say normal conditions never produce abnormal results, and to disprove this statement would be to dethrone God and give the government over to chance. There are today hundreds of thousands of parents addicted to the use of liquors, who would scorn the idea of being considered intemperate, and yet these very people are inevitably perpetuating weakness and entailing upon children and grandchildren an endless heritage of moral, mental and physical misery. Not only are physical deformities and predispositions to the taste of alcoholic liquors transmitted, but the frenzied excitement, nervous and demoniacal disposition of inebriate parents are often perpetuated as characteristics in their offspring, urging them into crime and degradation.

Hawthorne says: "We assume that faults and frailties are more readily and persistently reproduced than virtues, since the former belong to man's nature, as distinguished from that self-affected modification of his nature which we call character. Nature is passive, and character is active; and activity is more apt than passivity to be original and peculiar."

Dr. Greene further said in his address: "It is upon the members of the medical profession, and the exceptional laws which it has always demanded, that the whole liquor fraternity depends, more than upon anything else, to screen it from the opprobrium and just punishment for the evils which the traffic exerts upon society."

And how they do propitiate the doctors! One day there came to me by mail a budget in gorgeous array of coloring, setting forth the unrivaled medicinal virtues of rare old champagne; the wines of Burgundy, Moselle and Rhine; the Hungarian, with its *peculiar* medicinal qualities, and the sherry and the port, with a long list of virtues, so delicious to the senses, that one is tempted to believe that half the joy of life is lost when dis-

carding these "nutty," "fruity," "golden," "mellow," "delicate," "very old" and youth-giving delights. So rhythmically and musically did the appetizing adjectives run on that one's sense of the poetical was rudely jarred, and ugly pictures loomed up, when the list ended in the suggestive names: "Fish House Punch" and "Whisky Cocktails!"

"No doubt," said a speaker at the Sanitary Congress, "alcohol may be a good rough-and-ready remedy, when you do not happen to have the pharmacopœia at your back; but where you have, you will find something that will do what alcohol cannot do. If you want a diffusible stimulant you will find something far better than alcohol. If you want something to quiet the stomach, you will find something better than alcohol."

When Dr. Nathan S. Davis, of Chicago, was entertained at the Brighton breakfast last summer by the British Association, he was called upon to speak, and said:

"The medical profession must face this matter of alcohol, and accept and act upon that responsibility. They must be the educators that are to teach the people that instead of wine and beer and ale and whisky being necessary for man, they are simply anæsthetics and absolutely poisonous, calculated to shorten the duration of human life, and to diminish every interest that man has in the world." Further on he said: "While medical advisers go to your fireside and educate your children by their very language into the belief in alcohol, that every fainting is to be propped up by it, and every cold is to be mitigated by it everywhere; that alcohol is the one agent that is to cure all the ills that ever sprang from the box of Pandora—as long as this is done by the medical profession it is in vain that you teach simply morality."

The "Lancet," in referring to this speech, said: "Dr. Davis's disparagement and denunciation were absolute and unconditional. We are tempted to ask if the doctor's indictment is the whole truth, if alcohol has no redeeming quality. Admitting that it does infinite harm, does it do no good? Does it prevent no evil? Can the able physicians who recognize its virtues be all mistaken?"

"What do we know about intoxicants?" asks Dr. Norman Kerr, President of the Society for the Study and Cure of Inebriety.

"Let us interrogate science; science is simply knowledge. She will tell us the exact truth unbiased by any consideration as to the kind of answer we should like to have from her. We designate alcohol as a poison in the same manner as we designate chloroform or ether. If they are poisons, so is it. If they are not, it is not."

Turning to Davis' Lectures on the Principles and Practice of Medicine," a volume of nine hundred pages, on the methods and results of treating all varieties of disease without the administration of any kinds of alcoholics, we gather in the closing lecture in the Practitioners' Course for 1884, the following: "When the chemico-physiological school of investigation with Baron Liebig at its head, developed the fact that all alimentary substances were capable of being arranged into two classes, the nitrogenous and carbonaceous, the theoretical idea was adopted that the former were appropriated to tissue nourishment, and the latter uniting with oxygen by a species of combustion resulting in the development of heat and carbonic acid, were respiratory foods. Alcohol being rich in carbon and hydrogen was at once assigned a place at the head of the list of respiratory foods and of supporters of animal heat. When taken into the living system it was supposed to unite rapidly with the oxygen received through the lungs evolving heat, and leaving as resultants carbonic acid gas and water; in this way its supposed heating and stimulating effects were explained. The simplicity of the explanation, coupled with the high authority of Liebig, caused it to be universally accepted, although resting on a purely theoretical basis, without a single experimental fact for its support. Dr. Prout, of London, by direct experiment, proved the fallacy of the evolution of heat theory, and others followed. Dr. Percy found that alcohol taken in a dilute form into the stomach was carried with the blood into all the organs and structures of the body without change of composition, and that its presence could be easily detected by the proper chemical tests. The school of investigation still believing that alcohol being a hydro-carbon, must necessarily be used for maintaining temperature and respiration, suggested that its union with oxygen might result in forming acetic instead of carbonic acid, and the popular belief was sustained that alcoholics were capable of increasing both the temperature and strength of the human body." In the meantime experimentation went on. Dr. Böcker, of Germany, by a very careful series of experiments, proved that the presence of alcohol in the living system actually diminished the eliminations of effete matter, and consequently that its presence must retard those

molecular changes by which nutrition, secretion and elimination are effected. Dr. Davis proved by an extensive series of experiments that during the active period of digestion, after taking any ordinary food whether nitrogenous or carbonaceous, the temperature of the body is always increased, but after taking alcohol in the form of either fermented or distilled drinks, the temperature begins to fall within a half hour, and continues to decrease for two or three hours. Later on Lallemand and Perrin proved conclusively that alcohol when taken into the stomach was not only aborbed and carried into every organ and tissue of the body, but also that it was eliminated as alcohol, unchanged, chemically, from the lungs, skin and kidneys. Another French scientist, Duray, in his work on the action of alcohol and anæsthetics in the organism, gives the same testimony. Dr. Prout's experiments were repeated, and his results were confirmed by Sandras and Bouchardet of France; Hammond, Davis, and others of this country. Böcker's experiments were carefully repeated by Anstie and Hammond. Dr. Davis repeated his experiments on heat, and these were confirmed by a large number of observers, among whom were Richardson, Anstie and Hammond. Dr. Davis says further in his valuable work: "It is conceded by all investigators that when alcoholic liquors are taken into the stomach, the alcohol is rapidly absorbed into the blood, circulates with it throughout all the tissues of the body, and may be detected in the form of alcohol both in the blood and in the structures of the various organs. All agree also that it is eliminated through the various eliminating structures."

These facts, when observed in regard to the behavior of any other substance, are regarded as amply sufficient to prove that the substance so acting is not alimentary in its nature, but foreign to the system. But so strong is the predisposition to find some important use for alcohol in the human system, caused by customs and habits of thought through many generations, that the most vigorous tests and calculations have been made to ascertain whether some part at least of the alcohol taken might not be retained, and, if not used directly for nutrition of the tissues, certainly converted into some kind of force or energy. The experiments of Lallemand and others, in reference to the elimination of alcohol, have been abundantly confirmed, except the claim that the amount eliminated is not equal to the whole quantity taken. For a long time it was claimed that the retained portion underwent oxydation and evolved heat. But this was at last fully demonstrated by direct application of the thermometer to be erroneous. It was then assumed, by Dr. Parkes and Count Wallowicz, that its consumption resulted in the evolution of nerve force. But here, again, the crucial test of direct experiment soon showed that so far as the motor and sensory nerve and muscular functions are concerned, both were diminished in direct ratio to the quantity of alcohol taken. Dr. Davis emphatically asserts that the propositions advanced are as well established as any facts in the domain of physiology, or in the whole field of natural science; and they point with all the clearness and force of a mathematical demonstration to the conclusion that alcohol is in no sense food, neither furnishing material for the tissues nor fuel for combustion, nor yet generating either nervous or muscular force. Its positive effects are simply those of an anæsthetic and organic sedative. The retained alcohol, that is not eliminated, is held simply by a strong affinity for the albuminous constituents of the blood and tissues, retarding by its presence the natural affinities and movements of such constituents, and is detached by the slow process of disintegration. It is exactly this retained alcohol that causes in the habitual, moderate drinker those slow but certain deteriorations of structure, described under the head of "fatty and atheromatous."

Lately I have received several letters in reference to the attitude of the profession as a class in this country on this question of alcohol as a medicinal agent, which so profoundly disturbs the British medical mind. One, a prominent clinical teacher, writes: "My belief is as heretofore. I advise alcohol as a fortifier and bridge in acute diseases, when sufficient food cannot be taken to meet the body needs. I have as much right to that belief as to any other clinical fact which I have witnessed."

Another, from a gentleman of wide acquaintance in the medical world, distinguished as a surgeon and a teacher of young men. Being of the conservative school, and not fond of innovations of any sort, I was desirous to have his opinion. After expressing strong condemnation of the stupidity of the class of people who convert any good into evil, he adds: "I know of no medical men in this country who are at all active or even markedly interested in the question. In prescribing, however, a judicious physician considers the habits and weaknesses of the patient prescribed for."

Dr. Davis seems to hold a different opinion in regard to the interest of the profession in this country, for he declared before the British Association, "when I am at home hardly a week passes but some one writes from different parts of the northwest country who has found by experience and actual test that he does not need alcohol in the treatment of disease. If these were summoned together, there would be near a thousand, some of them of high standing"; and he said further, "step by step the progress of science has nullified every theory on which the physician administers alcohol. Every position taken has been disproved, until it is narrowed down to this: acute diseases where it is supposed there is danger from extreme weakness. In typhoid fever it is resorted to as a tonic, and the weaker the patient the larger should be the dose to prop up the circulation. I have seen the experiment tested again and again, with my finger on the pulse, watching my patients at intervals, and I have never yet found any evidence that alcohol increases the force of the heart one iota. The result of absolute test and careful experiment have shown that just in proportion to the amount of alcohol mingled with the blood, just in the same proportion the heart's force was diminished, and the amount of blood delivered from the heart was diminished and at no stage increased from the beginning to the end. At no stage was there increased power until, as the alcohol was increased, the heart's action stopped in paralasis. And with my own countryman, Prof. Martin, of the Johns Hopkins' University, who had every requisite that science could invent to secure accuracy in learning exactly the amount of alcohol in the blood, at each successive stage of increase, from the slightest to the full amount that was fatal to the heart's action, the test proved just the same: that in exact proportion to the amount of alcohol added the power was diminished, and that diminution was arrived at in a very marked degree by mixing only two and one-half parts of alcohol to 10,000 of the blood; that is, estimating a certain quantity of blood in the average man, it would require the presence of half an ounce of alcohol to a good ordinary adult man—absorbed and diffused in the blood—to be sufficient, according to those experiments, to make a very marked and decided diminution in the cardiac powers and in efficiency in circulating the blood, thereby showing as clearly as possible that, instead of being a cardiac tonic, it is an absolute cardiac paralyzant; Martin's results were that simple increase in the relative proportion of the blood, as in the other, stopped the heart in diastole—utter paralysis. And even before these experiments, Prof. Anstie, who investigated narcotics, anæsthetics, and stimulants, in his last edition, said: 'It must be conceded, from all experiments and observations, that instead of there being a stage at which alcohol produced an increased action of the heart, the paralyzing effect coming afterwards, that apparent excitement and exhiliration was only the first step of paralysis.' And further on he says: 'I have come to one distinct conclusion, the importance of which appears to be very great, namely, that, as in the case of chloroform and ether, the symptoms so commonly described as evidence of excitement depend on a stimulation of the nervous system preliminary to the occurrence of narcosis, and are in reality an essential part of the narcotic, that is, the paralytic phenomena.'" Dr. Davis continued: "Hence, I assume that alcohol neither strengthens, nor nourishes, nor sustains the heart's action, but diminishes it. You will see that Dr. Parkes, one of your own countrymen, demonstrated by his figures that the heart under the influence of alcohol increases the amount of work done sufficient to be equivalent to lifting a ton weight a certain height in a day. He figured it all out mathematically. Pray let me ask you to look critically at those figures. They are founded entirely on the fact that, under the influence of alcohol, the heart is increased in the frequency of its beats, by a certain number in a minute. He has taken as the basis of his figures, that because the heart acts four or five times a minute faster on the average, under the influence of alcohol, it does so much more work. Now, if mere frequency were a cause of more work, the basis would be right; but does not every medical man I address know that, instead of that being a proper foundation, the more weak the heart gets, as a rule, the more frequent are its beats? that instead of increased contractions of the heart being a measure of the efficiency of the power, and the amount of work done, it is rather a pathological indication that its power is diminished? and this is in direct accordance with the results of other observation. Instead of it proving the heart does more work, it simply proves that its physiological power is disturbed, and unquestionably the paralyzing influence upon the vaso-motor nerves, diminishing the circulation in the capillaries, presents a barrier which is the immediate prompter to the heart acting to try to overcome the obstacle; and, if he could have done as Martin and the other experimenters did—measure the

actual amount of the delivery of the blood from the heart, so as to measure its power—he would have found that, instead of doing more work, it does less. Its quickness is an evidence of its embarassment. I was taught, like all others, to use alcohol as a tonic. When convalescence came, a little wine each day, or some bitter herb in whiskey, was calculated to hasten recovery and promote strength. But some of my patients refused because they were teetotalers, and I soon found that they recovered strength sooner without it, and that there was less tendency to relapse than in the cases of those who continued its use. Here was the first step in progress, and consequently I came soon to abandon it as a tonic, as I found it of no value. On the contrary, while the patient took it for the first few days or nights, the anæsthetic effect diminished their weakness, and there lies the delusion. One of the curiosities in my mind in regard to alcohol is the delusion it has upon the world. The words "Wine is a mocker, and whosoever is deceived thereby is not wise," were put in the good old book for a purpose. Mocker! What does a little alcohol do, such as would be considered a tonic? It is just like ether, or chloroform, or any other anæsthetic. It dulls the cerebral hemispheres, and so removes for the time being the consciousness of aches and pains and weariness, and leaves the individual at ease. But a little further, and it diminishes these sensations still more, and the body begins to feel light and hardly conscious of its own weight. In this stage there frequently comes the disposition to dance or sing, and the tongue gets loose. Now the world calls that evidence of excitement, evidence of stimulus; but instead of accepting that verdict, analyze it, and alcohol is found to be exactly parallel with every other anæsthetic. The patient goes through exactly the same stages as in chloroform anæsthesia. But where is the surgeon who supposes he is stimulating or invigorating his patient? It is only the transition from the first beginning of diminished consciousness. Next he begins to lose his sense of propriety, and talk as he would not were he free from that influence; and that same influence causes him to say that it protects him from the cold. How long the ages have been in which the belief has prevailed that, if you are going out into the cold, you cannot stand it without having something to warm you. And they would be ready to testify before a court of justice that it did warm them. How many thousands of our profession have been giving it, are giving it to-day, when the feet are cold, to help to warm the patient, and yet the thermometer tells accurately, step by step, that from thirty minutes after it is taken to the end of its influence the temperature is diminished. The patient would testify the contrary. Why? Simply for the reason that the anæsthetic effect diminishes his consciousness of whether it is cold or not. The laborer, dripping in perspiration in July, takes it, and tells you "he cannot stand the heat without it," exactly reversing the case. It warmed him in January; it cools him in July. Just the same with the good mother when nursing; she supposes that nursing pulls upon her strength and thins her blood, and she takes a little wine and beer at every meal to keep up her strength and to increase the flow of milk; and here she suffers exactly the same delusion as the laboring man. With the anæsthetic effect of the alcohol, she does not realize the sense of weariness in her muscles, and she says "it is the only thing that keeps me up;" but every one of these mothers, within four to six weeks of its use, when they stop and compare their condition with what it was when they began, know their last state is worse than their first. The alcohol has been a positive detriment. Its presence in the blood diminishes the absorption of oxygen in the air cells of the lungs, as was long since proved. It lessens the exhalations of the waste carbonic acid, keeps the blood with an excess of carbonic acid, which is itself a further anæsthetic, and in the course of a few weeks the beer comes to supplant the appetite for food, and she tries to live upon it instead of digestible food, material that can make flesh and blood."

Just here permit me to refer to the history of the case of a lady, given to me lately, which I thought might be triumphantly claimed on the alcohol side. This lady had been a great sufferer from "nervous dispepsia." She is the wife of a physician, and was attended by a prominent gentleman of Philadelphia. There was great emaciation, extreme debility, and chronic diarrhœa, and not the smallest quantity of food could be retained. Every remedy that could be thought of had been tried but failed. At last a friend induced her to try small doses of claret. She did so, and in a short time was able to take food in small quantities. The claret was very unpleasant to her, and and as time went on grew more and more distastful, but she determined to persevere, and finally digestion was entirely restored, and when I saw her she was the picture of health. As I had commenced to study the

effects of alcohol I was greatly interested in this case, and wished to know Dr. Davis's opinion, for I thought I had surely scored *one* for alcohol. The following is an extract from his letter: "I presume the case you speak of was really one of simple hyperæsthesia of the gastric and intestinal mucous membrane, and was relieved by the anæsthetic effect of the small doses of alcohol in the claret, and might have been relieved just as certainly and as quickly by the judicious administration of small doses of any one or half dozen combinations of anæsthetic and soothing antiseptic remedies taken immediately before swallowing doses of the simplest kinds of nourishment. At least I have never found *one* of the kind that I did not succeed in relieving without any kind of wine whatever."

Dr. Sinclair, of Belfast, says: "A consideration of the influence of alcohol on the system which does not take into account its effect on the heart, is not unlike a representation of Hamlet with the Prince of Denmark left out." And he adds: "What do we think of the value of any drug as a dietetic agent that leaves out of consideration the effects on other organs besides the stomach? What should we think of any conclusion drawn from the action of digitalis that left out its effect on the heart? And yet a distinguished writer has stated: 'I consider the stimulating action on the heart to be one of the most important properties of alcohol.'" Dr. Sinclair goes on: "A powerful action of the heart which causes the dilatation of the capillary system, caused by paralysis of the vaso-motor nerves, produces an increased flow of blood to the different organs of the body. Thus, when we take alcohol with food, at a time when we specially require for the process of digestion freedom from excitement, and less, rather than more, blood to the brain, we produce by this agent a congestion of, or an increased flow of blood to the brain, and we further increase the excitement by stimulating the heart."

Parkes, in his "Manual of Practical Hygiene," says: "Alcohol would be a most dangerous agent if it were not for the yielding of the vessels produced by paralysis of the vaso-motor nerves, the strong wave from the strongly acting heart would break the vessels, or the heart would not be properly emptied of the blood during the contraction. It seems likely, therefore, that there must be danger in the use of alcohol when the arteries become rigid in advancing age, if the heart is then susceptible to the action of it."

This hardly agrees with the old saying that "wine is the milk of old age."

Dr. Richardson says: "A faint heart that can be systematically restored by resort to alcohol is a diseased heart; of this I am as certain as I am of the animal mechanism;" and he goes on further: "I can have no object in defending this question, except in my solemn convictions of its importance as one of the basic facts of sanitation, and as such that we should give it our support. For my own part I have no kind of prejudice on the matter. To me the phenomena of life present themselves so entirely in the experimental form, I can harbor no prejudice, can find no time to encourage one. I look for evidence and having found that in nature, am led by it. I wish for no professional brother to believe it because I say a thing bearing on the question, though my studies have been longer than his, but I would invoke his honest judgment. It often occurs in men of science to look only on the side of the question in which they have been educated. One medical man has stated authoritatively and officially with regard to alcohol that it is a 'food, a stimulant and a sedative.' I want the profession to take the other side and analyze such a statement —to consider these three words and see how they apply as used. To say them of any one substance, seems to my mind to be altogether illogical and out of the question. I have been studying as a student again, the works of the masters in my profession on the degenerations to which the body is subject. Without the slightest selection I have been seeking the authorities on the causes of these degenerations. I take up the works of those who are simply pathologists and I find there is nothing so striking in all that history as the circumstantial testimony which these men bear to this one agent alcohol, in the production of these degenerations; other agents are referred to only accidentally but on questions of pathology, this has an all-pervading influence. By consensus of opinion you find these men writing down a series of degenerations springing from that one cause which put together would make a volume of the largest kind." He further records as a matter of personal history: "I had no thought of alcohol except as a food, a generation of force and fortifier in mental and bodily fatigue, but was asked to study the action of alcohol along with a whole series of chemical bodies, and to investigate their bearing in relation to each other. So I took the alcohol from the shelf, as I might any other chemical, and experimented over

a lengthened period and the results were invariable—neither 'food, fuel nor generation of force.'"

Dr. Green in his paper before the medical society of Boston several years ago, asserted that "alcohol is neither food nor medicine. It cannot add one molecule to the plasm out of which our bodies are daily built up. On the contrary, it exerts upon the whole animal economy a most deleterious influence. It does not supply, but diminishes vital force. It weakens the nerves, deadens the sensibilities, lessens the power of the system to resist disease or to recover from its effects. Alcoholic stimulants *may* serve a purpose in bridging over attacks of sinking and prostration and physicians may, and often do interpret such momentary exaltation as favorable to life and health and so continue them. But the incited activity produced by such stimulants does not last many hours and cannot be extended to any great length of time, because the depressing effects which are sure to follow their use, more than counteract their power to stimulate. Alcohol cannot sustain vital force. It weakens the powers of digestion and assimilation, and cannot be long continued without disastrous effects, and these cannot be vital force except by increased power of digestion. There can be no excess in the animal economy without a corresponding loss. The momentary exaltation of the functions of either body or mind produced by alcoholic stimulants, is always followed by an increased degree of depression. Alcohol may spur a weary brain or nerve a feeble arm to undue exertion for a time, but its work is *de*structive not *con*structive, such stimulation means destruction, not added force. It is not stimulus, but rest that is required for exhaustion from excessive mental labor. It is a whip, a cruel spur, quickening speed and consuming vitality;" and he adds, "in the case of a patient rapidly sinking, I might perhaps administer whisky or brandy were nothing else at hand, but with the firm belief that the object would have been more satisfactorily attained by harmless agents. As a result of thirty years of professional experience and practical observation, I feel assured that alcoholic stimulants are not required, and I believe that many if not the majority of physicians to-day of education and experience, are satisfied that alcoholic stimulants as medicine are worse than useless, and physicians generally have only to overcome the prevailing fashion of the day, to find a more excellent way, when they will look back with wonder and surprise that they as individuals and as members of an honored profession, should have been so far compromised."

Dr. King Chambers, one of the most distinguished teachers of medicine living, says, "Alcohol leads to a diathesis of general degeneration, and as far as evidence has gone its action upon life is consistent and uniform in all its phases, and always exhibits an arrest of vitality."

Parkes, in his work on hygiene, asks, "Are men really better and more vigorous and longer lived with than without alcohol? If distinctly hurtful in large quantities, is it not so in these smaller amounts?" He says further, "There is no question that several brain diseases, including some cases of insanity, are produced by alcohol; also degenerative changes in the stomach, liver, lungs, and probably in the kidneys." And he adds, "To use Dickinson's expressive phrase, 'Alcohol is the very genius of degeneration,' and these degenerations are not confined to the notoriously intemperate. They have been seen in women accustomed to take wine in small quantities, not excessive, and who would have been shocked at the imputation that they were taking too much, although in their case the result proved that for them it was excess. The nature of the degenerative change appears to be in all cases the same, namely, fibroid and fatty; and furthermore, considering the increase in the action of the heart and the dilatation of the vessels, it can scarcely be doubted that alcohol is one of the agencies causing disease of the circulatory organs. Its influence on the nervous system generally, and on the regulating centres of the heart and vaso-motor nerves in particular, probably arises from a direct transitory union of the alcohol with the nervous substance."

To Fothergill, who always commands the attention and confidence of the student by his charmingly written works, I turned with peculiar interest to seek his teachings on alcohol. In his "Manual of Dietetics," recently published, he says: "Alcohol may well engage our attention, both as a stimulant and for its food value. It is a force liberator, and has some value as a 'food fuel.' Alcohol requires no digestion; let that fact be kept in view. It quickly passes by osmosis into the blood. This matter becomes very important when the digestive powers are seriously enfeebled. Alcohol provides some force, and borrows some from the system, and that is where the 'shoe pinches.' This reminds one of the Jew who smilingly

and with great good will offers to lend money when we are in a pinch, but extorts an interest that brings ruin at the last." The doctor goes on to say: "Whenever possible or practicable alcohol should be accompanied by some soluble carbo-hydrate, which should supply the place of the borrowed force, say with some malt extract or milk. The neglect of this matter is fraught with disaster. The effect of alcohol is to produce increased action of the heart, dilatation of the carotids, and so flush the brain with blood. The flooding of the post-cerebral lobes produces a sense of well being; the patient feels better for the time, but this effect is temporary and evanescent. Such stimulation carries with it the after effect of exhaustion. The heart flags, the carotids contract below their normal calibre, and the brain becomes bloodless. If this lead to sleep, as often happens, then the alcohol may have been advantageous in every way. But the temporary time of stimulation ought to be utilized to assimilate some easily digestible food; otherwise, it may have been useless, aye, worse than useless. Alcohol is a two-edged tool, not to be used without reflection; and must be used skillfully, for gastritis might be set up if pushed recklessly, in which case the stomach rejects it quickly. Here nature steps in to limit the stimulation which is threatening the organism, when exhaustion is close at hand. This condition of exhaustion is specially liable to come on when alcohol alternately with beef tea alone is given to the patient. Beef tea is no food. Alcohol, which is a food, carrying with it a heavy borrowing power! No wonder the system is in danger of sinking from exhaustion. All this applies to acute conditions, as fevers, bronchial attacks, etc., where we wish to sustain the powers, and for that end we use alcohol. But we must so use it in combination with soluble carbo-hydrates, that we do not make it a means of sinking the ship. When administered alone, experience has told us in unmistakable accents that the end is not far off."

We are led to ask: "How can a food carry a heavy borrowing power? How can anything properly called a food be the means of sinking the ship unless administered with soluble carbo-hydrates? How can its administration, without easily digested nourishment, be 'useless—aye, worse than useless,' if it be truly a food?" One is almost tempted to believe the doctor would wish that it might not be used at all, he hedges it about with so many cautions. In his delightfully written work on "Indigestion and Biliousness," he says: "There are times when generous wine may be freely drunk, not only without injury, but benefit. (It is not forgotten that careless medical instruction to drink wine freely have led to sorrowful results, nor that a patient may interpret medical instructions liberally, so as to make an excuse for alcoholic indulgence). So long as it is certain that they are doing good and agreeing with him, alcoholic drinks may be used. The physician must speak out with a distinct utterance if his ideas are well-defined and chiseled out. There is a certain unstable temperament in certain persons, perhaps a part of the neurosal tendency of the age, which must be taken into consideration. The magistrates are aghast at the amount of asylum accommodations they are called upon now-a-days to provide, so great is the spread of lunacy. All nervous affections are on the increase, consequently there is a growing class for which it is more or less unadvisable to order stimulants, especially alcohol. We cannot order now a glass or two of wine daily, as of yore." And further on he says: "We most be more guided by rational knowledge, by physiology, and not by fashion in our dietetics."

I turn to another distinguished advocate of stimulants, Dr. Julius Uffelmann, of Leipsic, an investigator, whose work on "Febrile Diseases" is quoted as masterly. He says: "In the treatment of acute diseases alcoholic stimulants are indispensable. It is now believed that their action of reducing temperature depends on the influence of alcoholics in retarding oxidation. It is known that they are rapidly absorbed and transformed into water and carbonic acid. We must, therefore, acknowledge them to be nutritious and antipyretic. But it cannot be questioned that large doses, even in typhoid fever, may be followed by injurious consequences. The free administration of such dilute alcoholics even as Tokay wine, has not infrequently produced intense hyperæmia and ecchymosis (as has been proved) of the gastric mucous membrane, and this, at least, should serve as a significant warning. Their effects in individual cases are sometimes *incomprehensible*, so that it is not seldom, especially among those who are not accustomed to their use, or who are of sensitive constitution, that untoward symptoms are produced, such as restlessness, extravagant dreams, palpitation of the heart and acceleration of the pulse, without increase of temperature. These effects, with the relaxation following, produce an aggravation of the affection; and even when occasioned by

moderate doses, need to be witnessed but once to serve as an admonition. The continuous use of alcohol in all cases of acute disease is followed by another evil. Alcohol is the best remedy in conditions of great prostration, and by means of it we are frequently able to obtain a life saving reaction. But if administered with frequency, it may happen that, in a moment of great need, its analeptic action may fail us. This consideration, pointed out so clearly by Liebermeister, should not be lost sight of in conjunction with the question of alcoholics in fevers. Thus, with ample reason, we arrive at the conclusion that these stimulants may be properly administered in fevers, not in the large doses now recommended, but in small doses and very freely diluted; and if we are in doubt as to the manner in which the patient is affected by spirituous liquors, the effect of a single dose should be ascertained before going further."

Dr. James Ridge, from whose papers I have before quoted, says: "Speaking from my own experience I can affirm that I see far fewer cases of extreme prostration since I abandoned the alcoholic treatment, and I cannot resist the conviction that, whatever alcohol may seem to do, its ultimate effect is to produce prostration in cases which would otherwise escape. I believe this is particularly the case where alcohol is administered *as a food*, and is relied on for that purpose, replacing materials which truly deserve the name. Alcohol, it must be remembered, has a two-fold *rôle* in the system. It has its chemical influence on every cell with which it comes into contact, and is in turn affected by them, *sui generis*. But, on the other hand, it has its special influence on the nervous system, and through this upon the circulatory and trophic system. On these it acts as a paralysing and inhibiting agent. Hence, if it is desired to diminish the vitality of cells, whether nuclei or wandering leucocytes, it is necessary to give such quantities as will be seriously injurious to the processes of animal life. To effect one's object we must well-nigh poison the patient. I have never found any difficulty without alcohol in enteric fever after the crisis, and believe that even in collapse from hemorrhage alcohol is contra-indicated. I altogether disbelieve that alcohol can keep a heart going which would not have gone on without it, and we are certain that reactionary fever after hemorrhage is almost entirely due to the administration of alcohol; when that is not given there is little or none."

Dr. Hammond once stated that if the presence of alcohol taken in the form of alcoholic drinks, lessened the sum total of elimination from the human body to the extent of half a pound in twenty-four hours, it was equivalent in value to half a pound of food taken. "This idea," Dr. Davis says, "originating with men of known scientific reputation, rapidly became popular, and again furnished all classes with a plausible reason for taking alcohol as a beverage. It was claimed that by waste being retarded it was equivalent to supply, and consequently "indirect food." Those who have drawn this inference forget two of the most important physiological laws relating to animal life; first, that all the active phenomena of life depends upon and directly involve molecular change, and consequently necessitates both waste and supply; second, every cell or organized atom of living animal matter has only a limited duration of integrity or life, at the end of which it must either undergo a natural disintegration into waste matter or degenerate into an unhealthy and lower type of organization. Therefore, whatever retards the natural molecular changes, retards the phenomena of life, and by retaining cells beyond the natural limit of time directly promotes their degeneration into materials of a positively injurious character—fatty, caseous or septic materials, instead of undergoing natural dissolution and excretion as waste matter. Hence the prevention of a certain amount of waste or living structure in a given time is in no proper sense physiologically equivalent to an equal amount of new material by nutrition in the same time. On the contrary, both experiment and common observation show that if the tissue changes and waste are retarded by the presence of some agent capable of exerting such an influence, derangement of structure or function invariably follows. Alcohol's strong affinity for the albuminous constituents of the body hold the natural molecular changes in check and thereby retard these changes as seen in the diminution of temperature and the quantity of eliminations. It is not these alone that are diminished by the interference with the natural affinities of the blood, but the taking up of the oxygen from the air cells of the lungs is retarded, and the necessary change from venous to arterial blood."

A late journal records that Drs. Mosso and Maggiora, two eminent Italian physiologists, have recently been overhauling the influence of various foods and other substances upon muscular work, and by novel and ingenious methods have confirmed in a most conclusive

manner the statement that alcohol positively diminishes energy. The editor, commenting on this, says: "The sooner the popular error respecting the food value of alcohol is thoroughly exploded the better for the rising generation.

Dr. Edwards, of the London Hospital, says: "I became anxious to test the effect of alcohol upon the sick. My observations soon brought me to the conclusion that my patients recovered far better after I discontinued its use. I went on very carefully and gradually, and I came definitely to the conclusion that even in cases of delirium tremens, they did better when treated without it. For five years I had charge of the hospital. One in fifty-eight of the mothers died and one in ten of the infants. During the time I had *sole* charge, March 1st, 1868, to February 28th, 1869, with only a few shillings expended on alcoholics, out of 167 deliveries, there was only one death of the mother, (a woman in advanced consumption,) and among the live-born children one in twenty-one."

Surgeon-Major Pringle, of India, at the Sanitary Congress, said: "I have spent thirty years of my life in India. I suppose I have seen as much cholera as it falls to the lot of most people to see, and I must say, in the army the giving of stimulants was almost a fatal treatment. When nature is trying to recover herself and alcohol is administered, her whole future efforts are shut up. It is a fact than can be proved to a demonstration. Look at carbonate of ammonia! What can you possess as a finer stimulant than that? Give that to a man,—there are no subsequent depressing effects. Our duty as a Medical Congress is an important one. Of course there will be difficulties. Numbers of people object to the withholding of stimulants, because they say they are necessary; but they always withhold one great reason, which is, because they like them. We must remember we are battling with a liking. If we can tackle that, then we shall make a great stride with the profession on this important subject."

Dr. Beaumont, Lecturer on Materia Medica, in the Sheffield Medical School, says: "Besides inducing an inflammatory condition of the system, alcohol perverts the blood, and it is owing to this circumstance that many chronic complaints are made worse and more prolonged by the wines and other liquors ordered habitually by medical attendants. I have treated several thousands of cases of all kinds occurring in general practice, without alcoholics of any kind, and have been gratified with the successful results. The medicines take effect more potently and answer their end better. If I must tell the truth, it is I who am the sufferer by my non-alcoholic treatment, for the patients get well much sooner, and as a natural consequence, my bills for professional attendance are very considerably less. No doubt if I were to follow the usual custom and order wines and other liquors, my patients would yield a much larger revenue in the way of fees."

Dr. Cheyne, of Dublin, Physician to the Forces, says: "The benefits which have been supposed to be derived from alcoholic agents, have invested them with attributes to which they have no claim, and we as physicians ought to make every retribution in our power for having so long upheld one of the most fatal delusions that ever took possession of the human mind."

Dr. Higginbottom, of Ipswich, says: "I have amply tried both ways. I gave alcohol for twenty years in my practice, and have practiced thirty years without it. I have not found a single patient injured by the disuse of alcohol, or a constitution requiring it; indeed, to find either, although I am in my 77th year, I would walk fifty miles to see such an unnatural phenomenon. If I ordered or allowed alcohol in any form, either as food or as a medicine to a patient, I should certainly do it with felonious intent."

Dr. Nichols, Medical Officer of the Longford Fever Hospital and Infirmary, gives interesting statistics of treatment without alcohol. In the Fever Department, 51 admitted, 43 recovered, 6 died, 2 remained. In the Infirmary, where there were many serious surgical and midwifery cases, 823 admitted, 737 recovered, 45 died, 41 remained.

Dr. Bernard O'Conner testified before the British Medical Association, "During fourteen years practice I have never used alcohol for any patient, and my experience at the Consumption Hospital, to which I have been attached for some years, has been, that consumptive patients progress very much more favorably with the absence of any alcoholic liquid than they do when alcohol is administered. I have had many opportunities of comparing the results of non-alcoholic beverages towards evenings, with those directly traced to the alcoholic solutions which are administered in the latter part of the day to consumptive patients, and the result of my observations has been that alcohol simply increases the night's perspiration, increases the night's cough, and leaves the patient

jaded about six or seven in the morning. I would call upon my professional brethren, and more particularly those who have charge of the out-patient department of hospitals and who have large family practices, to be a little more careful than they appear to be, in the administration of alcohol."

In a letter lately received from Chicago, it is stated that at the Washingtonian Home in that city, hundreds of cases of delirium tremens are treated every year without alcohol: the bromides and chloral used instead. Dr. Wilkins, of that institution, says he placed his main dependence on beef tea and plenty of sleep. At the Harrison-Street Police Station, where some of the worst cases are treated, no alcohol is used: bromides and opium the chief remedies. At other places where they object to strong opiates, they use stramonium, lupulus, fld. ext. cinchona, nux vomica, etc. In some of the late journals I notice that strychnine is used by many French practitioners; also by the Russian. The Russian *Medical Journal* reports nine cases of acute and chronic alcoholism treated by means of hypodermic injections of strychnine; and in the immediate future, the writer says, there will be abundant material at hand on observations of the effect of this remedy.

"Armed with the knowledge that science has revealed to us," says the specialist Norman Kerr, "we can with boldness thunder at the doors of our legislation, with the demand of an awakened and indignant national conscience, that proper provision be made for the treatment of the diseased inebriate, both rich and poor, and that the plague may be stayed."

Pardon me if I summon Dr. Davis to the stand for a few moments more. He says, "I speak the more positively because for thirty years I have faithfully tested the correctness of the sentiments given in relation to the therapeutic effects of alcohol, in an ample clinical experience both in hospital and private practice. I have found no case of disease,—no emergency arising from accident that I could not treat more successfully without any form of fermented or distilled liquors. The preparations of ammonia and camphor are far more speedy and efficient remedies for immediately arousing the sensibility, while in caffeine, digitaline, convallaria, etc., I have found the proper cardiac tonics for restoring permanent steadiness and force to the circulation."

It is difficult to overcome the force of habit and traditional education, and one is loath to renounce a faith that has been believed to be well grounded; but if the testimony gathered is worthy of consideration, has alcohol other place than on the druggist's shelf, guarded as vigilantly as strychnine, arsenic, or aconite, and dispensed as cautiously and only under the prescriptions of judicious and conscientious physicians?

ABDOMINAL SECTION DONE FOR ECTOPIC GESTATION.

BY JOSEPH PRICE, M. D., OF PHILADELPHIA.

Name of patient, Mary Fultz (white).

1. Date of operation, Wednesday, March 30th, 1887.
2. Age of woman, 37 years.
3. Number of normal pregnancies, 4,—3 males, 1 female.
4. Length of survival of woman, 14 days.
5. " " " child, 4 hours.
6. Duration of gestation about 7½ months.
7. Cause of death, hemorrhage; due to walking and straining while on the commode. She was an *intractable* subject.
8. Residence, 1810 Fillmore st., Camden, N. J.

Points of Interest.—Beginning as a right tubal pregnancy, with a history of pain, shock and high temperature, indicating rupture of tube at about the fourth month, from which she recovered in a few days; subsequently her condition improved until within about two weeks prior to the operation, when she had paroxysms of pain, which required the free use of opium; this continued up to the time of the operation.

Examination.—She was small boned and greatly emaciated. Palpation showed symmetrical tumor only to be felt; vaginal—thin sack wall low down and posterior through which the extremities of the child were easily felt; cervix high up and pushed far forward; the diagnosis of "extra uterine pregnancy" had been made by her physician, Dr. Donges.

Operation.—Short incision, free discharge of bloody serum, uterus only to be seen and felt, flattened out to about six inches, forming the anterior wall of the sac. A distinct sulcus between the fundus and sac. Sac punctured in the region of the left ovary, an active female child delivered, cord severed between compression forceps, uterus contracted rapidly, forming a perfect uterine ovoid about the size of a fist, the sack also contracted rapidly. General intestinal adhesions to posterior surface of sac and uterus and laterally. The rapid contraction of the uterus and friable sac and almost genera

placental attachment rendered the stitching of sac to abdominal opening most difficult; the intestines at the upper surface of the sac were stitched to the abdominal wall.

After Treatment.—Drainage and free irrigation. The wound remained healthy and clean, large quantities of placental tissue washed away daily, patient remained free of pain, and her general condition was good until she persisted in getting out of bed that she might use the commode and not the bed-pan.

Notes of post-mortem made by DR. CHAS. B. PENROSE: "The abdominal incision was united throughout. The adhesions between the sac and the abdominal walls were firm, with the exception of the upper part, where the adhesions had yielded, and a loop of small intestine about five inches in length had slipped from above into the abdominal opening. About six ounces of clotted blood were found in the peritoneal cavity. There were no signs of peritonitis. The intestines were pale and bloodless. The uterus was enlarged and flattened against the anterior abdominal wall. The remains of the placenta presented at the lower right side, and were about the size of a small fist. The placenta was adherent to the posterior surface of the uterus, to the left ovary, to the posterior surface of the right broad ligament, to the right side of the pelvis, to a portion of the ilium and of the large intestine. A corpus-luteum was found in the right ovary. The outer half of the right Fallopian tube, if present, was not removed. No examination was made of the other parts of the body."

THERMIC FEVER—A CASE.

BY E. A. WOOD, M. D., OF PITTSBURG.

A German woman, age 20, lately arrived in America, was taken ill, July 18, at 2 P. M. Saw her within a few minutes of the onset of the attack. Found her sitting on a chair limp and unconscious. Pupils contracted; pulse 120, respirations 22, thermometer in axilla 109½, temperature of air in room 98. Had her laid on the floor, and all clothing removed. Applied ice and ice-water to all parts of her body. At three o'clock the bowels moved very freely; the temperature of her body fell to 106, and pulse was 115. Continued cold externally; injected 14 grs. antipyrin into arm. At 3.30 temperature was 105. At four o'clock, for the first time, when cold water was dashed on face, she would prolong the inspiratory movement—"catch the breath," showing returning sensation. Thermometer in rectum registered 104. About this time she began to have spasms of the muscles of the arms—spasms of a mixed character—alternately clonic and tonic. She also began to moan as if in distress. Applications of cold water were now left off, except when heat of surface of body indicated their use. Thermometer at five showed 103. The legs at this time began also to be affected with convulsions of like character with those of arms. Injection of one-fourth grain of morphia quickly arrested all spasms, nor did they return. The pulse was 100, pupils normal. At seven o'clock she became conscious, after having vomited profusely undigested food, in which was cucumber, taken the day previous to the onset of attack. She purged and vomited till midnight, when she slept until morning. On the morning of the 19th she was rational, complained of dizziness, with headache, soreness and tiredness. She quickly recovered.

REPORTS OF SOCIETIES.

MEETING OF THE BRITISH MEDICAL ASSOCIATION, HELD AT DUBLIN, AUGUST 2–5, 1887.

Special Report for the MEDICAL AND SURGICAL REPORTER, by E. S. McKee, M. D.

The Antiseptic System of Surgery.

The address on surgery was delivered by EDWARD HAMILTON, M. D., F. R. C. S. I., Professor of Surgery in the Royal College of Surgeons of Ireland, and Surgeon to St. Stevens' Hospital, Dublin. He opened his address with a glowing tribute to Robert William Smith, an illustrious Irishman, who had filled the same position twenty years before, and then went on to say:

In an address of this kind the mind instinctively turns to a retrospect of the improvement of surgery. A prominent position must be accorded in this Victorian era to the antiseptic system of surgery, still enveloped in the clouds of uncertainty and misconception, notwithstanding the work which so many eager and enthusiastic admirers have bestowed upon it. The system may be wrong in practice and founded on an erroneous theory, but it has spread throughout the civilized world, and the wonderful results that have followed it cannot be denied. Yet, we find some of its most devoted adherents abandoning parts of the system long considered as essential, and that, too, without diminution of results. Again, we find antiseptic precautions so little regarded—

nay, almost set at naught—as to prompt the ovariotomist to flush the peritoneum with water containing germs and spores and thirty different kinds of beasts, and yet point to a continuous record of success little if at all inferior to the more complex method. What conclusion can the simple inquirer after truth arrive at?

It may be conceded as proved that the atmosphere that surrounds our globe is infested with myriads of minute organisms, subject to constant and restless change. These changes are largely influenced, if not changed, by their surroundings, and they again produce disturbance in their environments. Some of these can only develop in material which is dead; and are, therefore, amenable to physico-chemical laws. Others, again, are capable of living in tissue which is alive, where they increase and multiply, disarranging and vitiating the whole organism. In the first variety the effect produced is in direct proportion to the actual amount of the ferment introduced. In the second, the amount of disturbance produced is out of all proportion to the minute quantity of the poison which produces it. That these latter bodies are potent factors in suppuration and infective inflammation would appear to be proved beyond a doubt. Experiments have proved that injury may be produced, either mechanical or physical, on the deep tissues of the living body, and if due cleanliness of the instruments be observed, and atmospheric air absolutely excluded, no effect whatever is produced beyond the injured spot. The hot iron, or injections of strong solutions of chloride of zinc kill the tissues, but the necrosed mass produces no ill effect on the surrounding structures.

It is certainly our duty to destroy and exclude from the body all these micro-organisms, and if the means adopted for that purpose—call them Listerism, antisepticism, surgical cleanliness, or by whatsoever name you will—turn the scale a feather weight in restoration to health, or saving the life of a single human being, the man who refuses to employ them through apathy or prejudice, incurs a responsibility nothing short of crime.

A suitable germicide is now the object of pathologists and chemists. It is interesting to watch now one, now another, lauded and proclaimed, only to be superseded by a new claimant. Carbolic acid, corrosive sublimate, iodoform, thymol, have each for a time worn the crown, only in their turn to be deposed and dismissed for new favorites.

Up to the present time attention has been almost exclusively fixed upon infective germs, sufficient regard not having been paid to the important influence of environment. We know that these atoms, no matter how virulent they may be, cannot undergo their life changes, cannot produce their infective result, unless the environment, like the cultivation fluids of the pathologist, is capable of developing and sustaining this change. Deposited on a clean glass, metal or porcelain, they die of inanition. In contact with dead organic matter or living matter, in certain conditions of altered or reduced vitality, they become a teeming source of infection, decomposition and decay. If we bring pathological surfaces to such a condition that they do not afford a suitable soil, do we not accomplish as much as when we destroy germs? Surely the perfection of antisepticism must be attained when these two conditions are fully developed and enforced.

The protective power of vaccination against small pox and the protection of the blood by the previous action of the exanthemata are examples of the influence of environment. The bacilli of splenic fever, so destructive to herbivorous animals, take little effect on carniverous, and none at all on the pachydermata. The bacteria which will cause septicæmia in the mouse are wholly inert in the field-mouse. If we study human by comparative pathology we learn much. Look at the flood of light which has been shed by the study of the bacilli of splenic fever, chicken cholera and glanders, and by Pasteur's discovery of the cause of disease in the silk worm. We can learn much from the pathology of the vegetable kingdom. Some of the most troublesome diseases which the surgeon has to deal with are caused by the invasion of vegetable parasites. Fruit can be ripened with almost mathematical precision by interposing between it specimen fruit of the same species which is already ripe, as if the emanations from the ripe fruit exercised a ripening influence upon the fruit in its immediate vicinity. I think we see this principle of environment frequently illustrated in human pathology when disease extends to adjacent but not continuous surfaces.

This two-fold aspect of chronic inflammation was forced on my attention by trying to think out the best mode of dealing with chronic abscesses. The discharges from a recently opened abscess do not show any of these micro-organisms which are so characteristic of purulent matter in acute suppuration.

The treatment of open wounds by a solution of chloride of zinc, the method introduced by the late Campbell D. Morgan, has been the treatment of my colleagues and myself at St. Steven's Hospital for over twenty years. This has no rational foundation in histo-pathology, yet our faith in the practice cannot be shaken by the dictum of even so high an authority as Koch, who asserts that chloride of zinc is inert as a germicide and much less effective than corrosive sublimate, iodine or carbolic acid. I firmly believe that it will render a cut surface a barren cultivation field, and I think we may infer that it will produce a similar effect on the wall of an abscess.

My method of proceeding is the following: A long curved trocar and canula is pushed through the abscess, and made to transfix it some four or five inches; a piece of rubber tubing with a single hole about the centre was drawn through the canula by a thread connected with the cutting end of the trocar; the aperture in the tubing being lodged midway between the two trocar wounds, the canula was removed; one end of the tube was attached by glass tubing to the exit conduit of an irrigating can hung upon the wall above the patient's bed; the other end discharged into a reservoir at the bedside; by means of a stop cock the flow of liquid could be regulated with the greatest nicety, so that it could escape drop by drop, and render not only the contained fluid but the abscess wall, perfectly aseptic. Again, by compressing the exit portion of the tube between the thumb and finger, you can cause distension of the sac to any degree desirable, and thus produce all the advantages of the distension method proposed by Mr. Callender. And now, as to the fluid which is to be used for irrigating an abscess. In my earlier trials of course, I employed the fashionable antiseptic, carbolic acid, but my patients, after a few hours, exhibited olive-colored urine and gastric disturbance, warning me that I could not persist without reducing the strength of the solution to such a degree as to render it inert. Subsequently I employed a very weak solution of chloride of zinc, 1 pint to 200, with the best possible results. The cavity remained antiseptic; remarkable changes were developed in the wall of the abscess; thin membranous matter was discharged from time to time. After about a week the tubes through which the solutions were passed became enlarged so as to be no longer water-tight. This at first causes considerable trouble in keeping the patient dry and comfortable, but more extended experience proved that at this time continuous irrigation is not needed, the cyst wall having undergone such decided alteration in its structure that occasional syringing is quite sufficient for the perfect healing of the cavity. Such, Mr. President and gentlemen, is the treatment of chronic abscess by irrigation.

In conclusion, fellow-laborers of the British Medical Association who are engaged in surgical work, we have committed to us a goodly heritage. This Victorian age in which we live has been signalized by some most remarkable advances in all the arts and sciences. Human intellect and inventive faculties, day after day gain fresh triumphs over matter, but in none have greater strides been made than in the art and practice of surgery; more especially in those lines where it is being extended by a more careful application of anatomy and physiology. It is true that in this country experimental research, which has done so much to relieve human suffering and save human life, should be untrammeled, instead of being cribbed, cabined and confined within the four corners of an Act of Parliament, which is a reproach to the common sense of that august assembly and an outrage on the characters of the members of a profession who, whatever may be their faults and failings, have never been open to the charge of cruelty or disregard of pain.

The hysterical shrieks of a few women and the puling sentimentality of some weak-minded men, have placed and retained in the statute book the Vivisection Act. *Tu-quoque* is, I believe, a bad defence; but we see them mount their horses and hunt to the death the timid hare or clever fox. I should be sorry indeed, to say a word against field sports, which have no doubt their useful purpose; I only ask for consistency, and that scientists in this country should not be placed at so great disadvantage compared with their continental brethren.

We must however, make the best use of the means at our disposal, and carry forward the standard of investigation into new and unexplored fields. One by one the dark caverns of the body are being illumined by the light of scientific surgery, even the ivory walls which guard and protect the dome of thought are pierced by its rays, and the brain itself mapped out with geographical precision, as in a chart; so that we can by careful reading of the symptoms place our finger on the very spot oppressed by injury or disease, and then by a bold and decisive operation lay it bare, and remove the cause of its morbid condition or disturbed func-

tion. There is ample room and verge enough for work—many untrodden fields of discovery, so that we can make the future of Queen Victoria's reign as glorious in the annals of scientific discovery, and as full of help to the sick and wounded sufferer, as it has been in the past.

At the same meeting, Prof. T. Grainger Stewart, of Edinburgh, discussed

The Incidence of Albuminuria Among the Sick.

Following up the inquiry as to the incidence of albumin in urine presumably healthy, reported to the Royal Society of Edinburgh, the author has made a series of observations on various groups of patients to which he had access, as to its incidence among the sick. These patients consisted of 150 consecutive private patients, 150 consecutive cases from the wards of the Royal Infirmary, 100 consecutive out patients, 50 cases from the wards of the hospital for sick children, 40 cases from a ward devoted mainly to the treatment of cases suffering from alcoholism, 50 patients from the fever hospital and 25 cases of women from the maternity hospital.

In each case the urine was examined with nitric acid, picric acid, and Fehling's solution.

The author then presented a series of tables.

Table I. Showed that among the private patients 36, or 24 per cent. showed albumin; among the indoor patients of the infirmary 10 per cent., and among the sick children 7 or 14 per cent., among the fever cases 38 or 66 per cent., among the maternity cases 10 or 72 cer cent.

Table II. Dealt with the causes of the incidence of the albuminuria in the 150 private cases. Thirteen out of the 36 were due to Bright's disease, 1 febrile, 2 vascular, 3 alimentary, 2 glycosuria, 8 functional, 6 accidental, and one probably accidental.

Table III. Dealt of the probable causes in the 150 indoor infirmary cases; 74 cases of albuminuria were met with in the wards, 26 were from Bright's disease, 5 febrile cases, 10 vascular, alimentary 6, nervous 5, glycosuria 53, cases accidental 5.

Table IV. Dealt with the probable cause in 100 outdoor infirmary cases. Of 19 showing albuminuria, 8 were from Bright's disease, 3 as probable Bright's disease, 5 vascular, 1 almentary, 1 glycosuria, 1 probably accidental.

Table V. Dealt with the cause in the 50 children. Bright's disease occurred in 1 case out of the 7, probable Bright's disease 3, febrile 3, nervous 1.

Table VI. Showed the results obtained as to the occurrence of albuminuria amongst 50 fever cases in the Edinburgh Fever Hospital. Of the 50, 18 or 36 per cent. showed albumin with nitric acid, and 38 or 72 per cent. with picric acid. Taking the 38 cases of scarlet fever separately, we find that 13 or 34.2 per cent. showed albumin with nitric acid, and 23 or 30.53 per cent with picric acid.

Table VII. Showed the results in 40 cases of alcoholism, either acute or chronic, treated in the Royal Infirmary. The specimens were obtained on the morning after their admission. One would naturally expect a large proportion of albuminurics among such patients and no doubt the per cent. is high. Still we must remember that the class of patients of whom this group is composed is most closely related to that of the soldiers, that is, the conditions of life such as heavy bodily labor, etc., which in soldiers, conduce to make albuminuria frequent, and also operative here. Still, the percentage of albuminurics is distinctly higher than it is amongst the soldiers, and, indeed, more closely corresponds to the statistics obtained among the indoor infirmary patients. While, therefore the albuminuria is probably mainly to be ascribed not to alcohol, but to the conditions of life, the alcohol must be credited with the increase over what we would expect in healthy individuals of the same class. This may be partly a direct effect of the alcohol, but doubtless the indirect influence as regards inferior diet, bad hygienic conditions which intemperance involves, are also factors in the case.

The next question is, how we are to explain the albuminuria in these various conditions. I shall not attempt to do this until I have gone over the results of experiments made by different observers, with the view of clearing up the question. Certain inferences seem to be warranted from the facts I have stated:

1. That in health, so in disease, albuminuria is more common than is generally supposed. 2. That it is more common among patients of adult age than among children. 3. That cases of Bright's disease do not account for one-half the cases of albuminuria met with in practice. 4. That they account for more than any other individual cause. 5. That next to them rank the changes in the renal circulation due to cardiac and other maladies, and accidental cases due to the admixture of blood, pus, etc., with the urine. 6. That so far as this series of observation shows, cyclical, diatetic and simple persistent albuminurias are rare. 7. That

while in Bright's disease, especially the waxy and cirrhotic forms, the quantity of albumen is at first so slight as to be only shown by picric acid, it yet is more abundant than in albuminuria due to other causes. 8. That in the digestive and nervous cases, and those due to high temperature, the quantity is often so small as only to be discovered by picric acid.

We now turn to note the results of our observations as to the occurrence of peptones in the series of cases examined. Table VIII shows incidence of peptonuria in the series of cases examined. It thus appears that only 4 out of 150 patients showed this condition. These cases were: 1st. A case of cirrhotic Bright's disease, with gout and dyspepsia. 2d. A case of cirrhotic Bright's disease with heart disease. 3d. A case of rupture of the kidney; and, 4th. A case of acute rheumatism. The urines were all albuminous. Of 150 indoor patients at the Infirmary, 16 gave the reaction. These were a cases of dyspepsia, a case of malignant disease of the liver, stomach, lungs, etc.; a case of heart disease; two of phthisis (one of them syphilitic); a case of pleurisy; nine cases of Bright's disease and a case of acute rheumatism. Except in the case of dyspepsia, all the urines contained albumen as well.

Dr. G. Apostoli, Professor of Gynecology and Electro-Therapeutics at Paris, then discussed

The Treatment of Fibroid Tumours of the Uterus by Electricity.

The author who is well known in gynecological literature, said that the great danger to life resulting from the surgical interference in these cases together with the inefficacy of drugs had caused him to look about for something more satisfactory. This he had found in the method which he had termed galvano-chemical cauterization. This might be vaginal, intra-uterine or parenchymatous, but was always monopolar.

In the hands of his predecessors electricity had been used in a vague and indefinite manner, those using it not knowing how much they were using. His method was energetic, tolerable, better localized and thoroughly under control. He insisted upon absolute and regular antiseptic vaginal irrigations before and after each operation. The punctures should not be more than one or two centimeters in depth and should be made by a small steel trocar or needle, the most prominent point of the tumor should be punctured, and this should, if possible, be done in the posterior cul-de-sac.

The anatomical and clinical results to be expected are:

a. As regards the material changes we may affirm that every fibroid tumor submitted to this treatment, sometimes after so short a time as one month, but certainly when the treatment is fully carried out, will undergo a manifest reduction of size, a reduction appreciable by the touch, and demonstrable by internal measurement. The further diminution of the tumor which continues for some months, varying in amount from one-eighth to one half of the original volume, is generally associated with a coincident and equal accumulation of subcutaneous adipose tissue on the abdominal walls. The retrogression of the tumor is not only apparent during the time of active treatment, but goes on continuously after it has been stopped, and is the persistent proof of the enduring influence of the electrical operation.

The liberation of the tumor from its local attachments takes place simultaneously with its decrease of bulk. The tumor, which at the commencement of the treatment was immovable, can progressively be made more and more to change its position, as the absorption of the enveloping tissues deposited round it advances.

Another phenomenon is observed in connection with the retrogression of the tumor. It not only contracts on itself but shows a tendency to separate from the uterus, to become more distinctly sub-peritoneal, to detach its mass as it were, from its setting in the uterine wall, and to remodel itself into a pedunculated form.

b. Clinically the results are not less striking. Perhaps they are even more so, as they are not only matter of proof by the examination of the surgeon, but the patient herself is the living exhibition of them. We may generalize the extent and importance of these results by saying that ninety-five times out of one hundred, they comprise the suppression of all the miseries constituting the fibroidal symptomatology. These cases may be categorically enumerated thus:—Hemorrhages; the troubles of menstruation, dysmenorrhea, amenorrhea, nervous disturbances; the direct pains in the growth itself, and those arising from mechanical pressure; and the harassing series of reflex actions.

In a word, the assertion may be safely advanced that, though our therapeutic resources only carry us so far as the sensible reduction of fibroid tumors, and not to their total absorption, we may with regard to the symptoms, certainly anticipate their complete removal, and the establishment of a state of

health equivalent to a true resurrection. I am justified in saying that the greater number of women who have persisted in the necessary treatment, not only were cured, but remained so.

I use the expression "greater number," because there is no such thing as infallibility, especially in medicine. I acknowledge having been sometimes unsuccessful, and so instructive are my failures that I shall recount them at length in a work now preparing. It will be seen they were cases in which there was no possibility of satisfactory treatment, owing to an apparently absolute intolerance of high intensities of current. I see now that I was wrong in retreating before this supposed intolerance. Among them were three cases of fibroma with ascites, and I now regret that with the aid of an anæsthetic I did not persist in going to the limit of my power. I have also met with the same intolerance in some hysterical subjects, in cases of very irritable uterus, and in others of periuterine and intestinal phlegmasia. Now with my present experience, I should not hesitate to operate to the fullest extent under chloroform. There yet remains the obscure question as to the class of cystic fibromas, and tumors with a tendency to malignant degeneration, where there is often a fearful and irrepressible hydrorrhea accompanying. I have recorded three such instances, and in them intra-uterine galvano-cauterization generally proves useless. Something more is demanded and we must seek in galvano-punctures a means of denutritive action more powerful and more efficacious.

Finally, I may lay down the following proposition: No operator should admit the failure of intra-uterine galvano-cauterization before having had recourse to the galvano punctures, which he must enforce either with or without anæsthetics.

We will now turn aside from all theoretical considerations, and look at the facts. I may rely upon them with confidence as my great support. I desire, however, in the first instance to prove the comparative safety of intra-uterine medication when my method is adopted.

Both in my clinic and in private consultations, as far as regards gynæcological practice, the application of electricity therapeutically assumes two forms. In the one it is exclusively faradic, and in the other galvanic. For the present I pass over faradism to occupy myself solely with the patients who have been subject to the treatment by continuous currents.

In the five years from July, 1882, to July, 1887, I have made either privately or at the clinic as many as 5201 applications of continuous galvanic currents, for most of the maladies included in gynæcological nosology, and I may enumerate them in the following order:

Fibroids of the uterus, polypi, entire or partial hypertrophy of the uterus, subinvolutions, acute and chronic metritis, ulcerations of the neck of the uterus, periuterine inflammations (perimetritis, parametritis, cellulitis, phlegmons), ovarialgia, ovaritis and periovaritis, salpingitis, ovarian and tubercular cysts at an early stage, atresia, hematocele.

These 5201 operations were thus classified:

1. At my clinic, 2837.

a. 1524 galvano-cauterizations, chemical, possitive, intra-uterine.

b. 749 galvano-cauterizations, chemical, intra-uterine, negative.

c. 368 galvano-punctures, chemical, negative, vaginal.

d. 200 cauterizations, galvano-chemical of neck of uterus.

2. In my private practice, 2864.

a. 1245 galvano-cauterizations, chemical, positive, intra-uterine.

b. 1027 galvano-cauterizations, chemical, negative, intra-uterine.

c. 72 galvano punctures, chemical, negative, vaginal.

d. 30 galvano-cauterizations, chemical, of neck of uterus.

These 5201 operations which range over a space of five years, were made upon 403 patients, who went through the treatment more or less systematically. I must not omit to mention that I intentionally say nothing about the number, for in one of the above, who were made the subjects of faradism, as I intend publishing a separate memoir on that subject.

Now, in referring to the history of these 403 patients, 276 at the clinic, 127 private, I have only to deplore the loss of two. Of these two deaths I take upon myself the entire responsibility. My method was not at fault. I alone was to blame as may be seen by the full and detailed report.

In one case I admit candidly there was a fatal error in my diagnosis. I did not recognize the presence of a suppurating ovarian cyst, which ended in death from peritonitis. In the second case death was due to a puncture made too deeply. The consequence was intra-peritoneal gangrene, for which the abdomen was not opened.

In addition I have to confess to having either excited or aggravated, in the course of the five years, ten periuterine phlegmonous inflammations. These must be attributed to blunders in carrying out the treatment, as will be shown when the account is published at length.

But errors of practice happened during the earlier days of my work, and were either negligence of antiseptic measures, which were either altogether omitted, or done imperfectly; or, the too violent or too intense use of the negative pole, in cases of subacute periuterine inflammations.

The fact is, that the negative pole, having a strong power of producing congestion, is a dangerous weapon, which at the beginning of any treatment must be used with great prudence and reserve, if one would avoid overshooting the mark for which it is intended.

To lay before you the facts of these accidents will serve the double purpose of warning you of what may befall, and preventing you from making similar errors. My caution is that whenever the negative pole is put to use, and there is any trace of pereuterine inflammation present, you must not only redouble your antiseptic heedfulness, but your operative proceedings must be carried on with deliberate carefulness. You must feel your way, testing the susceptibility of your patient by two or three preliminary operations, in which you can give doses so feeble that they only serve to enlighten you and habituate the patient so as to lead on safely to the use of higher intensities.

But when I tell you that this operative gynæcology, as I have to practice it, is carried on in such exceptional circumstances that no one else has ventured to encounter them, and upon a class of women who are obliged to walk home shortly after they get up from the couch, who seldom take the necessary rest in bed, and whom poverty forces in some fashion to get through with the ordinary duties of life, you will ask of me with curiosity, the explanation of this illusive mystery. All that I can say is, it appears to me that the intra-uterine current at the high proportions I trust to, seems to have in itself some special antiseptic and atrophic property.

I must close these remarks on the failures which I have no wish to conceal, but expose to you in all their nakedness, though they so stand as the evidence of only the usual difficulties which accompany the laborious and misty development of any new method. I do not speak of other dangers which lie in the way, such as the possibility of concealed pregnancy, and accidental abortion, and also the risk of opening up a vesico-vaginal fistula. I have already enlarged on this matter elsewhere, and in my next work on gynæcological electrical therapeutics, I shall devote a chapter to the needful precautions.

I am anxious to-day as the completion of my paper to bring forward a simple statistical statement of what has been my treatment of uterine fibroid.

From July, 1882, to July, 1887, I have had under my care 278 patients with fibromas or hypertrophy of the uterus in some manifest degree, upon whom I have used 4246 applications of currents of electricity. The patients and operations may be thus classified:

I.—Clinique. 188 patients, and 2347 operations.

1433 Galvano-cauterizations, positive, intra-uterine.

598 Galvano-cauterizations, negative, intra-uterine.

321 Galvano-punctures, negative, vaginal.

II.—Private. 92 patients, 1898 operations.

1085 Galvano-cauterizations, positive, intra-uterine.

746 Galvano-cauterizations, negative, intra-uterine.

68 Galvano-punctures, negative, vaginal.

As I said before I do not wish to convey the impression that all these patients have been cured. It is not so for the reason that some of them have not persevered to the end, especially in the clinique, the attendance having been discontinued upon the first feeling of amendment. But I can affirm that where there has been no negligence, 95 times out of 100 permanent benefit has been acknowledged. I may also predict that if adopted in its integrity and worked out as it should be, the mortality henceforward will be nothing. The following is a report which gives occasion for melancholy comparison. Among the patients who had not the will to let me finish the work begun, and whose impatience lead them voluntarily to seek the removal of their tumors by excision, seven put themselves into the hands of our most eminent surgeons, and not one of the seven recovered from the operation. Comment on this would be superfluous.

One word in parting. Men and their labors can, in general, only find their proper level and value through the esteem of their associates, and the way in which their work is publicly accepted. If my method ever meets with the confidence of the profession, (to speak only of England) it will be mainly

due to your illustrious countryman Sir Spencer Wells, who was one of the first to extend to me the benefit of his experience and authority; and to his learned friend Dr. Woodman Webb, whose name will ever be coupled with its introduction and diffusion. It would be injustice, were I not also to refer to the honor, such distinguished gynecologists, as the Keiths, father and son, Playfair, Savage, Elder and others have done me by their visits, and the encouragement given me by their approbation. I cordially thank all who are present, and assure you that the best recompense of the work of my life will be to find many of you becoming my followers.

Editorial Department.

Periscope.

The Treatment of Gonorrhœa by Injections of Iodoform Oil.

Dr. Thiéry (*Le Progrès Medical*, March 3d, 1887,) says, that amongst diseases of the genito-urinary tract few have called forth methods of treatment at once so numerous and so inefficient as gonorrhœa, and this multiplicity itself shows the difficulties to be encountered by the physician when he undertakes the care of this malady, so common and so productive of grave consequence. The patient demands prompt relief, and the aim of the physician is not only to accomplish this but to secure a radical cure.

Now, gonorrhœa left to itself tends to spontaneous resolution, and although a bacterial disease, it has a well-marked cyclic evolution and is often seen to get well without any treatment. This, however, is the exception, largely because of the imprudence of the patient, whose excesses cause the gonorrhœa to pass into a chronic state, and it is this chronic gonorrhœa which is so frequent and so rebellious.

Three methods of treatment may be employed. The expectant which sometimes succeeds; the emollient followed by balsams, and the abortive. We employ at the Midi Hospital the second method in preference to the others, from having observed its good results, and we do not hesitate to say that the treatment, properly carried out, almost always succeeds when the patient can manage, and is desirous of a complete cure. The following is the plan followed:

In the first period. 1. Patients are absolutely forbidden to drink beer, coffee, liquors or white wine, or to visit women, and are to be cautioned about touching the eyes with the hands.

2. Three times per week they are to take a full bath of an hour's duration.

3. Water colored with red wine may be taken with meals, but no other drink is allowed. Each day, between meals, a quart of water is to be drunk, in which forty-five grains of bicarbonate of soda has been dissolved.

4. A suspensory bandage is to be worn.

Second Period. 1. The same rules are to be observed as laid down under Section 1 of preceding rules.

2. The baths and bicarbonate are to be omitted and no liquid is to be taken between meals.

3. Six large pills of the following confection are to be taken each day:

℞ Pulv. cubebæ.
Pulv. copaviæ.....āā ʒ j
Magnesiæ.....q.s. ut. confect

If all these conditions are filled, and if the directions are carried out in all their details, and all the deprivations which they entail are put up with, success may be guaranteed. Wine and women have however such strong attractions for the hospital population (and they are so urgent in their demand for a speedy cure) that abortive treatment was introduced. This, however, is painful, and in inexperienced hands dangerous, and in most cases should be rejected.

The author, after using bichloride, nitrate of silver and other injections, has met with greater success in the employment of iodoform suspended in oil, a means of treatment which he characterizes as "active, rapid and absolutely innocuous." After trying saturated solutions of iodoform in ether, which were found too painful, a mixture of ether, iodoform and oil of sweet almonds was used, but both were given up in favor of a simple suspension of iodoform in the oil. About two drachms are injected in the usual way, after urinating, and retained for some time in the canal. The claim is made that iodoform adds to the antiseptic and microbian action an analgesic property which is of great value.

The odor of the drug is found to be sufficiently hidden by the addition of vanilline, coumarine, or spirits of eucalyptus.

Six cases are reported which were treated in the manner described; five were completely cured in from five to twenty-eight days, and the sixth was nearly well on the sixth day of treatment, when he left the hospital, making an average of thirteen days. From eight to twenty-nine injections were given.—*Jour. of Cut. and Genito-Urinary Diseases.*

Scarlatinal Uræmia in Children.

The uræmic symptoms which are noticed in diseases of the kidneys do not always arise in the same way and cannot all be explained upon the same ground. An especial significance attaches to those cases of scarlatinal nephritis in which the uræmic complex of symptoms appears without diminution of the quantity of urine, and sometimes even with an increased quantity. In five cases in point which the author reports, it is unfortunate that the anatomical condition of the kidneys is not in all cases clearly recognizable. In all these cases, however, the quantity of urine reached on the day before death at least the normal, frequently exceeded this amount very considerably, while the specific gravity showed no deviation from the normal. For the explanation of uræmia in these cases, the chemical theory is, according to the author, altogether useless, and œdema of the brain is invoked as the explanation. Upon the ground of theoretical observations, he thinks that the cause of the latter is a hydræmic condition of the blood, and disease of the blood vessel walls, as a result of the scarlatinal poisoning.—JACUBOWITSCH. *Centrallblatt f. d. med. Wissensch.*, July 9, 1887.

Note upon a variety of Transient Erythema arising in a person taking Choral and Alcohol Internally.

The fleeting eruption arising after the use of chloral hydrate, which has been many times described, happens, according to the author's experience, most frequently in young children; and of these the most frequently affected are those who have used at the same time some alcoholic beverage, such as wine, beer, etc. In cases where the face was affected in a very marked manner, the author saw at times the conjunctival as well as the mucous membrane of the mouth and throat, either as a whole or in spots, strongly reddened, glistening and dry. The breath of the patient, always, but only at the time of the eruption, gave a peculiar odor, reminding one of chloroform. Daily doses under forty-five grains were but rarely followed by an exanthem. Moreover, the author saw the same thing occur in two children who had taken alcohol but no chloral. BARBILLION in *Centrallblatt f. d. med. Wissensch.*, July 2, 1887.

On Diseases of Wild Animals.

Dr. H. C. Chapman says that nine-tenths of these suffer from heart diseases. Elephants suffer most from rheumatism, monkeys die ordinarily from lung or heart affections, the feline family of dysentery and heart disease, the canine of all possible diseases.—*Deutsche Medizinal-Zeitung*, July 14, 1887.

Ménière's Disease.

In the interest of the nosology of Ménière's disease (which the author thinks is better called Ménière's vertigo) it seems to be demanded that the severe cases marked by deafness that arises suddenly and quickly should be separated from the lighter forms, as both possibly depend upon a different anatomico-pathological basis. Many cases of the severe form could be attributed to hemorrhage into the labyrinth; many of the lighter forms to vaso-motor neurosis. But Brunner believes that hemorrhage has been allowed too wide a scope in the explanation of Ménière's vertigo, and is inclined to think that a large number of cases depend upon pathological conditions of pressure in the labyrinth; and that the interference with or obstruction of collateral paths for the peri and endolymph plays an important rôle in this. The following seem to the author indications of a neurotic (vaso-motor) cause of the disease: 1. A vertiginous aura preceding attacks. 2. Slight and only gradual appearance of disturbance of function. 3. A certain regularity and frequency of attacks. 4. The action of quinine in cutting short or weakening attacks (eventually also galvanization of the cervical sympathetic). For a case in point, contributed by the author, see the original article. The favorable influence of large doses of quinine is explained by the author as due to the production of a high degree of ischæmia of the labyrinth, just as has been proved to occur in the retina.—BRUNNER. *Centrallblatt f. d. med. Wissensch.*, July 9, 1887.

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ARTIFICIAL DIABETES.

Prof. Langendorff, in some recent investigations into the artificial diabetes produced in frogs by strychnine and curare, comes to the conclusion that under the influence of the former poison the degree and persistency of the diabetes are dependent upon the glycogenic capacity of the liver, and the season of the year; while the diabetes induced by the latter poison (curare), is independent of the liver, occurring after removal of that organ from the body, but only lasting one or two days.

As to the influence of seasons, the author found the maximum quantity of sugar in the autumn, during which time the liver of the frog is stored with glycogen to be used gradually during the winter; at this season the diabetes lasted generally four or five days, occasionally a week or over. The farther the winter advanced, the shorter was the duration of diabetes, in spring sugar continued in the urine on the average one or two days. The author was able to imitate this influence of season, by placing upon ice some freshly captured summer frogs that had been recently fed and keeping them there several days, thereupon, strychnine diabetes appeared, though under other circumstances it was absent at this season of the year. *Vice versa*, when the author had kept winter frogs which are rich in glycogen for two to four weeks in warmed water, poisoning by strychnine produced no sugar in the urine, or only a trace of it, while the liver was diminished in size and entirely free from glycogen. Moreover, under the influence of strychnine diabetes, the change in the weight of the liver was very striking. While the average weight of the liver of non-diabetic autumn frogs (which contain a large store of glycogen) was two and a half grammes, this average was reduced to one and seven-tenth grammes after induction of glycosuria, the liver being at the same time entirely free from glycogen. To confute the possible supposition that glycosuria in strychnine poisoning is due to muscular spasm, the author states that in frogs paralyzed by curare, but non-diabetic, he was able to induce diabetes by strychnine. Therefore muscular action is not the cause of diabetes. Prof. Langendorff believes that "the nervous system stands in a relation to the glycogenic function and to secretion of sugar that is similar to that existing between secretory nerves of other glands and their respective processes, and that strychnine would then be the source of direct or reflex stimulation of the secretory nerves of the liver."

Seegen, of Vienna, in his researches upon the quantity of sugar in the blood of diabetics, claims to have found a decided increase in the severe forms of the disease. It is of great interest that in two of his cases

having a mild form of the disease, the ingestion of food rich in starch increased decidedly the amount of sugar in the urine, without increasing the quantity of sugar in the blood. It will be remembered that Bernard maintained that an increase of the normal quantity of sugar in the blood was a necessary condition of glycosuria. If these results of Seegen are confirmed, glycosuria can not be considered as an increased glycæmia. A further item of interest in this connection is contained in the paper of Theil, of Königsberg, on experimental diabetes in birds. He explains the difficulty of producing artificial diabetes in birds upon the ground of the extraordinary powers of oxidation which birds possess.

In concluding a review of these highly valuable observations, it can only be said that at present they are not explicable by our present knowledge of the disease. They indicate, however, that what is at present known as diabetes mellitus can be divided into several diseases; and that one of these will probably be referred in a causal way to disease of the central nervous system and another to disease of the liver.

ON THE EMPLOYMENT OF KEFIR IN THE DISEASES OF CHILDREN.

We learn from the Austrian correspondent of the *Semaine Médicale* that Professor Monti, of Vienna, employs kefir with excellent results in the diseases of children. He uses for this purpose pure cow's milk.

For infants under three months, the milk employed for the preparation of kefir should be diluted with equal parts of water. For infants between three and seven months, a mixture may be made of two parts of milk and one part of water; and for children between seven and fifteen months, the preparation should be three parts of milk and one part of water.

The kefir is prepared in the following way: A quantity of kefir grains is soaked five or six hours in warm water, then put into a glass of milk, where they are left till they rise to the surface of the milk and become white, which takes two or three hours. A tablespoonful of the grains thus prepared is added to a pint of milk, which is then covered with a cloth; the mixture is shaken or stirred every two hours for eight hours, and kept at a temperature of from 63° to 65° F. The milk is then poured into a bottle which is hermetically sealed, and exposed to a temperature of 63 to 65° F.; the bottle is shaken every two or three hours. The kefir thus prepared differs according to the length of time the fermentation has been going on. Kefir No. 1 is the product of twenty-four hours fermentation. It is a thick drink, slightly acid, containing but little alcohol and carbonic acid. Kefir No. 2 is the product of two days fermentation. It is sourer, thicker, and foams in the glass. After a fermentation of three days (kefir No. 3) the richness of kefir in alcohol and carbonic acid is still greater.

There is another very simple process of preparing kefir, namely, by mixing equal parts of milk and kefir, prepared in the way indicated above, and shaking the mixture several times a day. In adding to milk a small quantity of kefir a beverage is obtained at the end of two or three days, equivalent to kefir No. 1 or 2.

Levy has recently prepared a Koumiss almost identical with kefir by adding curdled milk (bonny-clabber) to eight or ten parts of boiled milk, and repeatedly shaking the mixture, then exposing it to a temperature of 54° F. According to Monti's analysis, the quantity of alcohol and carbonic acid contained in this beverage is less than that in kefir No. 1, and he regards it as quite different from kefir. The physiological action of kefir is due to the presence of lactic acid, carbonic acid, alcohol and peptones.

Infants soon learn to like kefir, and take it readily, seldom vomit it, the healthy action of the digestive canal and the kidneys is promoted by it, and the weight of the body augmented.

Kefir grains come from Caucasia, and the preparation of Koumiss from kefir is familiar to the populace of Eastern Europe.

Notes and Comments.

MODERN TREATMENT OF COMMON DISEASES—DYSPEPSIA.

General Consideration.—Before giving some of the newest formulæ for the medicinal treatment that is suitable in different groups of cases, there are some statements applicable to the disease as a whole. 1. Medicines of themselves rarely if ever cure the disease, they are adjuvants and palliatives. 2. For a cure we must always aim to discover and remove the cause. 3. The most diverse influences may manifest themselves as some one of the many possible forms of dyspepsia, and we must be prepared to run the whole gamut from phthisis to masturbation, and from some obscure cerebral disease to simple constipation. It is quite possible that even when the cause is discovered, the stomachic condition will still remain the only manifestation of the disease that we are able to treat. This fact, while it enhances the importance of skill in the treatment of dyspepsia, at the same time vastly modifies prognosis. 4. Though the possible causes are many, the most frequent are bolting of food improperly masticated; indigestible food, or food that is unsuitable to particular persons; insufficient clothing, particularly of the feet. Whatever lowers the general bodily health, may, in a person predisposed, operate as a factor in the production of dyspepsia. Under this head belongs a sedentary life or close confinement in a vitiated air, such as many clerks and saleswomen are obliged to endure.

It will be seen that improved hygiene and a diet adapted to the digestive powers and requirements of the individual cover the ground. But to the average patient and to not a few physicians, "hygiene, regimen and diet," the cardinal principles upon which alone dependence can be placed for a cure of dyspepsia, are not presentive words pregnant with meaning; but mere catch-words, to be rattled off glibly because they soun l well, and have a certain professional ring. We have called them principles, and properly used each one should serve as the basis for categorical question and answer from each patient, regarding whatever may cause or perpetuate the disease. Nor is it sufficient to inquire and obtain an answer. Whenever possible, make a personal examination.

Attempts to divide dyspepsia into different forms have been unsatisfactory. For therapeutic purposes, it is better to simply recollect that the disease is a unit, but that every case must be subjected to a comprehensive and yet critical and minute examination. After this has been done, take the symptoms that seem to the patient most urgent and direct remedies to those.

Pain in Dyspepsia.—Sometimes this is the only symptom, as in gastralgia; sometimes it is the result of digestion that has been retarded until fermentation has produced acids. It may then take the form of heartburn; or if the offending matters have been carried into the intestines, give rise to colic; distension and rumbling in the bowels, or pain may be due to an excessive acidity of the gastric juice itself. Other less distinct forms of pain, amounting to weight, heaviness and various degrees of discomfort are rather common.

The value of some of the older methods of treatment has been well established. These are briefly: For the acute attack, copious draughts of hot water just short of scalding, combined with the local application to the epigastrium of a rubber bag containing hot water, or of a mustard plaster, or still better in some cases, a blister. Morphine hypodermatically is often demanded. During the intervals between the attacks, or in less severe cases, Fowler's solution before meals (gtt i–ij), small doses of nitrate of silver and belladonna in pill form, or dilute hydrocyanic acid.

For more recent remedies, we turn to the pages of Ewald's last edition, and obtain the following: Valerianate of Bismuth. This remedy Ewald recommends as one whose value has been many times verified. It should be given in pill or powder.

℞ Bismuthi valerian.....gr viiss
Bismuthi subnit.....gr. xv
Ext. belladonnæ.....gr. iss
Ext. valerianæ.....q. s.
Div. in pil. No. xx. Sig. two or three pills three times a day.

℞ Quininæ.....gr. viiss
Ferri reducti.....gr. v
M. Div. in pulv. No. vi.
S. One at the beginning of meals in gastralgia from general weakness.

℞ Potass. cyanidi.....gr. ¾
Aquæ destil.....ℳ lxxv
M. 15–30 drops three times daily.

℞ Creosoti.....gr. xv
Bread crumbs and mucilage.....q. s.
Ad. fiant pil. No. xl.....
Consperge pulv. cort. cinnam....
Sig.—One to two pills after each meal. In gastralgia due to abnormal formation of acid in stomach from fermentation.

℞ Zinci ferrocyanidi .....gr. iiiss
Magnesiæ ust.....gr. xxxiss
Cort. cinnam. cass.....gr. xxiv
M. Div. in pulv. No. viii.
S.—One powder four times a day, in nervous stomachic pains.

℞ Zinci sulph..... .....gr. iij-iijss
Aq. dest.....ʒ vss
M. SIG.—fʒss 4 times a day in gastralgia.

℞ Bismuth subnit.....gr. xv
Morph. acetat.....gr. 3-5
Sacch. alb.....gr. lxxv
M. Div. in pulv. viii.
One powder twice daily in cardialgia.

℞ Bismuthi subnit.....gr. xc
Ext. conii.....gr. xv
Sapon. med.....q. s.
Div. in pil. No. c. Sprinkle with Lycopodium.
Take one or two pills 3 times a day on an empty stomach. For gastric ulcer and gastralgia.

℞ Ext. nuc. vom.....gr. iij
Bismuth. subnit.....gr. vss
Magnesiæ carb.....gr. xxxvj
Sacch.....gr. cviij
Ol. menth. pip.....gtt xviij
M. Div. in pulv. No. xii.
SIG.—One powder daily. For gastralgia.

℞ Ext. belladonnæ.....gr. iss
Bismut. subnit.....gr. xv
Elæosacch. chamom.....gr. lxxv
M. Div. in pulv. No. x.
SIG.—Take one 4 times a day.—Cardialgia.

℞ Pulv. fol. belladon.....gr. xv
Bismuth. subnit.....gr. xc
Elæosacch. chamom.....gr. cl
M. Div. in pulv. No. xx.

℞ Morph. hydrochlor.....gr. viiss
Sodii carb.....gr. cl
Sodii bicarb.....gr. ccxx
Elæosacch. calami.....gr. xlv
Sacch. lactis.....gr. ccclxxv.
M. SIG.—To be taken on the point of a knife in cardialgia from excessive acidity of the gastric juice.

Ewald also recommends inhalations of nitrite of amyl.

In addition to the formulæ just given, alkalies after meals or acids before meals (as recommended by Ringer), are useful in pain from acidity of the stomach. When this is due to fermentation, salicylate of soda, about one hour after meals, is valuable.

Nux vomica with a dilute acid often acts very happily when given before meals in cases where heart-burn develops after meals. Anstie also recommends strychnine hypodermatically in gastralgia and gastrodynia. "There is," says he, "no such remedy as this." Besides the remedies already mentioned, chloral, charcoal and manganese deserve mention. When there is pain with acidity and flatulence, charcoal is often advantageously combined with an equal quantity of bismuth, say ten grains each, as suggested by Ringer.

Scarlet Fever and its Treatment.

Clement Dukes, M.D., London, writes to the *British Medical Journal*, July 9th, 1887: The Journal of June 11th, 1887, contained a valuable article by Drs. Jamieson and Edington on "A Method of Prophylaxis, and an Investigation into the Nature of the Contagium of Scarlet Fever." They have proved that the specific cause of scarlet fever is a bacillus, which they have cultivated, and with which they have inoculated animals and produced scarlet fever. They have also shown that this bacillus occurs in the blood during the first three days of the fever; that, later on, it is absent from the blood; and that it is found most extensively in the desquamating skin after the third week. They have, further, indicated a method by which this bacillus can be destroyed in the skin, and thus the spread of the infection of scarlet fever can be minimized, and the unprotected, even while residing in the same house, be safe from falling into its trammels.

But a still more important matter is the treatment and arrest of scarlet fever in each individual; for the first cry of a parent whose child has scarlet fever, is, "What can you do to save my child; and how can you spare him from becoming maimed for life by its sequelæ?" his second question being, "How can you prevent its spreading to my other children?" This second question Drs. Jamieson and Edington have answered. It is with the hope that I may induce them to investigate the first question that I am writing this paper; for it has already been brought within a measurable distance of being answered by Dr. Illingsworth, of Accrington, who, in a letter in the Journal for May 1st, 1886, stated that the biniodide of mercury ($Hg I_2$) is a specific for scarlet fever. Recognizing the importance of his letter in the use of mercury as a germicide, I resolved to administer the drug at the earliest opportunity. I have now given the $Hg I_2$ in several cases of scarlet fever—with this result, that it not only arrests the fever, but it prevents the desquamation of the skin, or arrests it to such an extent that only a slight scurfiness of the skin of the hands and feet arises. If such be found to be invariably the case, will the bacilli of scarlet fever be found in the skin at all; and, if not, will not the infectious period of scarlet fever be thereby reduced to a few days only, and will not the sequelæ of scarlet fever be absolutely prevented?

The $Hg I_2$ can be administered in the form of a pill or as a mixture of the liq. hyd. perchloridi c. pot. iodid. The only draw-

back to its use which I have at present found is that if it be given before the diagnosis is absolutely certain, the physician will be apt to think, when he finds no desquamation taking place at the usual time, that the case was not one of scarlet fever. The drug prevents the desquamation of the epithelium of the tongue, as well as of the skin, and the throat rapidly heals under its use.

I was busy collecting the facts when Drs. Jamieson and Edington's valuable paper appeared, and I should have waited until I had collected a sufficient number of instances before writing this paper had it not been for the desire that others, especially the above-named authors, would assist in establishing, or refuting, this treatment, for the experience of one individual is limited.

The benefit to be obtained from the use of $Hg\ I_2$ is far-reaching if it be reliable in all cases, for it not only prevents the desquamation of the skin, and thereby probably prevents the major part of the infectious nature of scarlet fever, but it will probably also be found that it obviates the necessity of keeping patients in bed for three weeks, which is the only safe rule hitherto, and isolated for five or six weeks, and will prevent the occurrence of the much-dreaded sequelæ.

The gist of the whole matter seems to be this: 1, that if the bacilli of scarlet fever are only discovered in the blood for about three days; 2, that if the bacilli, after this date, chiefly occupy the desquamating cuticle; 3, that is this desquamation can be prevented altogether by a medicine which destroys bacilli; 4, then, in all probability, the infection of scarlet fever will only last a few days, and we are within a measurable distance of limiting the spread of scarlet fever, and of removing its fangs by preventing the sequelæ.

The Abortive Treatment of Furuncles.

Dr. Louis Heitzman, of New York, writes as follows: After it was shown, some years ago, that micro-organisms are the actual causes of furuncles, it is rather surprising that parasiticides have not long ago been used in the local treatment of boils. It is well known that among the numerous parasiticides, salicylic acid often does excellent service in diseases of the skin, but in furuncles it has, to my knowledge, never been used. I therefore tried to abort furuncles with salicylic acid, plaster or salve, and the result was really surprising, for it acted beautifully. The first case in which it was used was that of a young man, who, for three weeks previously had suffered from a large number of boils of different sizes at the back of the neck. In spite of numerous incisions, new nodules appeared as soon as others were cured. The man suffered such pains that he was unable to sleep, and he could not turn his head in the slightest degree without most severe pains. When I saw him first, he had about one dozen larger and smaller elevated, indurated, inflammatory nodules on the left side of the back of the neck. I prescribed locally an eight per cent. salicylic-acid plaster:

℞ Acid. salicyl.,.....ʒ ij
Empl. saponat.,.....ʒ ij
Empl. diachyl.,.....ʒ j

When I again saw him, three days later, the pains had disappeared, he could move his head in every direction, and only a few superficial nodules remained; in three days more he was cured. I had opportunity to test the action of salicylic acid in furuncles several times, and almost every time with the best success. If applied early enough, it never took longer than six or eight days to cure furuncles of even a large size and of long duration, and the relief to the patient was manifested in a very short time. It is immaterial whether the salicylic acid is used as a salve or in the form of a plaster, the effect is always the same, and a five to ten per cent. salicylic-acid salve is of the same service. I use the officinal Unguentum aquæ rosæ as the basis for salves, not only because it has an agreeable smell, but because it is harmless; and this cannot always be said of vaseline, which is sometimes not free from sulphuric acid. A pleasant way to use the salicylic acid is in the form of the ten per cent. mull, which was first introduced by Unna; it is used in the same way as the plaster, and causes a superficial formation of blisters, or a sloughing of the skin.

If, as I hope, the salicylic acid will prove as efficacious in other hands as it has in mine, we have a means to cure the furuncles every time as soon as they are formed, and, if applied early enough, necrosis will never set in. I have noticed that, if applied too late, no core will be formed, but merely an accumulation of pus, which can be treated as a common abscess. If necrosis of the tissue is once present, salicylic acid also will have no more effect, and the best thing then is to open the boil with the knife, and hasten the cure by application of the salicylic acid salve. This treatment of furuncles is very simple, and is, I think, to be preferred to an injection. Whether this mode of

treatment is also efficient in carbuncles and felons I do not know, for I have had no opportunity to use it in these. In all probability a favorable result will be seen even here, since salicylic acid first macerates the epidermis and then softens it, whereby it can quickly penetrate into the skin and kill the staphylococcus.

In conclusion, a few words about the general treatment of furunculosis and about the so-called furunculous diathesis. It cannot be denied that a badly nourished person or one weakened by disease offers, on account of the great irritability of the skin, a more favorable soil to the staphylococcus than a healthy individual, and an improvement of the general health, as far as it is in our power, is certainly indicated. The local treatment, however, is by all means more important in furunculosis than the general, since it gives immediate relief to the patient. I know of cases where a furunculosis, which had lasted for weeks and months, was cured by the local application of a one per cent. salicylic-acid salve. Special care must be taken that the salicylic acid is equally divided throughout the salve, and all the patient has to do is to apply it every morning and evening in a thin layer.—*The Med. Record*, August 6, 1887.

The Pathology of Lumbago.

At a recent meeting of the Society of Biology, Féré, in discussing the subject of lumbago (*tour des reins*) remarked that this affection consists in a pain more or less severe, seated in the lumbar region, and manifesting itself suddenly after a violent effort. This pain disappears in a space of time, which may vary from one to four weeks. Valleix considers it as a "rheumatic pain," supervening in individuals predisposed, and seated in the muscles. It is generally admitted that "sprain in the back" (*tour des reins*) consists of a rupture of the muscular fibres, determining an effusion of blood and local pain. Fricard and Nielly regard it as a "neuralgia of the lumbar and sacral plexus," and they reject the theory of muscular rupture. The existence of a neuralgic element in certain cases of "sprained back," or lumbago, seemed to Féré to be put beyond doubt by a case which had come under his observation. Besides the lumbar pain, there existed certain *points douloureux* along the track of divers branches of the lumbar and sacral plexus. These painful points indicated "neuralgia of the superior, gluteal and obturator nerves, and external popliteal branch of the sciatic." These three nerves can be affected simultaneously in only one point, namely, at the emergence of the fourth pair of lumbar nerves, which sends to them filaments. There was, then, reason to believe that Féré's patient had neuralgia of the roots of the fourth lumbar nerves. Féré thought it altogether improbable that this neuralgia could have been due to "compression or traction" of the nerve branches during the exaggerated contractions of the psoas muscle, and external muscles of the vertebral column. Nor did the hypothesis of compression of nerves by blood effused from ruptured muscles, seem to him probable. The only tenable hypothesis, then, was that of "neuritis or neuralgia."

No more common or more troublesome affection vexes the general practitioner than what is called *lame back*, *sprained back*, or lumbago, and what is the exact pathological condition cannot yet be defined. According to one of the most recent medical lexicographers (Robin), "lumbago is a very painful state of contractions (sic) suddenly manifesting themselves throughout a part or the whole extent of the sacro-lumbar muscles, twenty-four to forty-eight hours after a chill. This pain, so keen during each contraction and extension of the muscles, is continued for eight or ten days, gradually ceasing, with or without treatment. There is no neuralgic condition of the skin. It is a manifestation in the sacro-lumbar mass of a state of the muscular tissue, which is sometimes also produced under similar circumstances, in the trapezius, sterno-mastoid, deltoid, etc. Frictions, massage, sinapisms, galvanism, hypodermic injections of morphia or ether, the use of tighter belts or bandages attenuate the pain and diminish its duration."

Senator (Ziemssen's Cyclopædia) classes lumbago among the myalgias. It is sometimes due to a strain and muscular rupture; sometimes to cold and damp. True cases of lumbago, which are confined to the lumbar mass of muscles, are, he says, not likely to be confounded with neuralgic pains which are apt to be of a wandering, fugitive character. The treatment is essentially the same, whatever may be the cause. Of late, remarkable results have been reported from methyl chloride spray.

—"How much calomel did you sell to that man for a quarter?" asked the druggist of his clerk. "One drachm," he replied. "Mercy, you'll compel me to make an assignment at that rate! Don't you know that stuff costs us forty cents a pound?"

Medicine: Before, With or After Meals?

Dr. J. Edward Green, of Macon, Ga., says, in the *Atlanta Med. and Surg. Journal*, June, 1887, that as all medicines are poisons to a certain extent, and that as in most instances they set up abnormal action in the human system, it is better to administer them upon a full stomach. This applies especially to two classes of remedies, those which are constructive in their action, and those which act as irritants. Remedies of the latter class, coming in immediate and direct contact with the branches of the pneumogastric nerve, set up violent convulsive action of the whole alimentary canal in order to expel the offending material, thus frequently eliminating the substance before it has had its effect on the system. The effects of opium and alcohol, taken on a full, and on an empty stomach, are illustrations of the points under discussion. As regards tonics, Dr. Green says that the best time for their administration is after eating. For, given on an empty stomach, they excite an excessive flow of the gastric juice, which, having nothing upon which to act, is either re-absorbed, or does positive injury by its corrosive influence on the mucous membrane. Iron and arsenic are illustrations of this point. Cod-liver oil is best given on a full stomach for two reasons—1st, When ingested while the stomach is empty, it irritates the pneumogastric nerve, which promptly causes its expulsion. 2d. The gastric juice exerts little or no solvent power on pure oily matters, aud consequently the effect is *nil.* In order to effect a certain organ or locality, it is necessary that the remedy should permeate the whole system. This cannot be accomplished when such irritation is set up as to cause the expulsion of the medicine before it is absorbed. Iodide of potassium in syphilis is an illustration of this. To sum up, it may be stated that all medicines which are irritant in their action, all constructive agents, all alterative, all remedies which are to be thoroughly carried into the system, and all alcoholic stimulants, had better be given with, or just after, meals.

Treatment of Scrofulous Glands.

H. C. Rogers, M. D., in the New York *Med. Journal*, June 25, 1887, discusses the difficulties in the treatment of strumous glands, and alludes to the large number of strumous children with slowly suppurating cervical and other lymphatic glands, which, after months or years of suffering, end in elevated or depressed cicatrices and unsightly scars. Under the most careful and judicious treatment the surgeon is liable to disgust his patient and bring discredit on himself.

During the past two years he has pursued one of two lines of treatment: 1. Teak's method of dissecting out the enlarged and inflamed glands and scraping old sinuses. He has resorted to this method in three cases, with results which were all that could be desired. The only objection to it is that it is quite an operation and cannot be adopted without an anæsthetic. To this the parents and friends of the children frequently object, remarking that they would rather take a longer time than to have any operation performed on their little ones.

2. He has treated nine cases by the method of Professor Verneuil, which consists in first evacuating the abscess by aspiration with a large-sized trocar, handling the parts as little as possible. Then as soon as the liquid becomes slightly blood-stained he injects the cavity with a five per cent. solution of iodoform in ether. The largest quantity used is about 3 fluid ounces, generally an ounce to an ounce and a half suffice. The amount of iodoform remaining in the abscess cavity to be absorbed rarely exceeds one drachm.

Dr. Roger's experience has been that generally one injection will be sufficient. In only three cases has he found it necessary to repeat the injection into the same swelling. In four cases he injected glands where he could not find pus, but where the centre of the swelling was soft and in a condition to break down. In such cases his plan is to inject from ten to twenty minims of a two-per-cent. to three per-cent. solution. In all cases the swelling is gradually reduced, so that in from four weeks to three months it has entirely disappeared. In all his cases he has employed internal treatment, as all the patients were more or less anæmic. Up to some six months ago he had been using a tonic containing arsenic, iron, and iodide of potassium; but, on account of the difficulty apothecaries have in making up a pleasant mixture that children would take, he has had some trouble in keeping up the treatment with regularity.

—A little "fresh-air child," who had never seen a cow before, was watching the milking process with eyes full of astonishment. After looking on in astonishment for some time, she drew near, and, placing her hand on the cow's distended side, exclaimed: "Why, she's chock full of it, ain't she?"

Experimental and Clinical Studies upon Tuberculosis.

These studies, published under the direction of Prof. Verneuil, of Paris, acknowledge their indebtedness to a summons issued by Verneuil, for a collection of prize contributions which should be related to assisting and advancing the investigation of tuberculosis. Eighteen large and small treatises, relating to the pathology and therapeutics of tuberculosis, were thus obtained, and some of them will be here discussed:

1. *The Phenomena of Karyokinesis in Tuberculosis*, by Cornil.

Cornil's report is based upon his investigations concerning the histogenesis of tubercle. With reference particularly to the karyokinetic phenomena, he comes to the result that under the influence of tubercle bacilli, both the connective tissue cells, as well as the endothelium of the vessels and the epithelium, begin to divide themselves and to multiply. In this way the well known so-called epithelioid cells arise. Then the bacilli pierce even into the vessels, remain fixed in the capillaries, and hence lead to a wandering out of white blood corpuscles, which collect around the tuberculous new formation.

2. *The Weakening of Tuberculous virus*, by Gosselin.

Gosselin has sought, in different ways to obtain a weakening of tuberculous virus. Next, he tried to determine whether inoculation of tuberculosis in animals, who are difficult to infect by artificial means, (carnivorous animals, crows, dogs), called forth a change in the virulence of the poison. These propositions, however, proved incorrect. Through inoculation with the tuberculous material of sick dogs, rabbits could be made as easily and firmly tuberculous as in any other way. Also in the virulence of the bacilli of severe tuberculous diseases and in those of milder, local, "benign" affections (as of bones and articulations) no difference was shown. Through injections of blood of tuberculous animals the disease could be transferred frequently. If the first injection remained without result, the animals did not on that account have immunity from infection. Animals could be easily infected, who sometime before infection had received daily injections of corrosive sublimate, iodide of mercury or iodoform. So, also, after infection had taken place, injection of mercurial preparations had no effect. On the contrary, iodoform seemed to strongly hinder the tubercle bacilli in their development. Rabbits that had been injected, remained healthy for a month by daily injections of iodoform. Immediately upon stopping the iodoform, tuberculosis set in.

3. *Upon the means of making the organism rebellious to Tuberculosis.* By Raymond and Arthaud.

These authors believe that the tubercle bacilli, just according to the state of their development, show a certain polymorphism, and that this corresponds, also, to their virulence. Particularly, there are certain zoogloea forms of the bacilli which possess decidedly insignificant virulence as compared with the ordinary rods and spores. Experiments to artificially alter the morphology of of bacilli, seem to be hopeless. The same authors also experimented to obtain an immunity for animals through the introduction of medicines Iodoform was without effect, while tannin seemed in this connection to have a certain influence.

4. *Upon experimental tuberculosis.* By Daremberg.

By inoculation of tuberculous masses by means of trephining, an artificial tuberculous meningitis was produced. The fresh spinal marrow of a tuberculous animal, even though the same animal had no meningitis, acted virulently. Experiments to produce immunity to tuberculosis, analogous to the well-known methods of Pasteur, had no result.

5, *Upon some of the histories of hereditary tuberculosis with reference to experimental facts.* By Landouzy and Martin.

These men have observed that the five children of a tuberculous father all died of tuberculosis, while the mother was and continued to be perfectly healthy. In this instance, an introduction of the disease through the semen seemed very probable. In order to obtain confirmation of this view, they inoculated sixteen guinea pigs with the semen of eight tuberculous rabbits. Six of the sixteen inoculated animals became tuberculous.

6. *Upon tuberculosis arising congenitally and suddenly.* By Prof. Lannelongue.

This is a clinical communication upon observations concerning tuberculosis of the bones and articulations, etc., in children a few weeks or months old—a theoretical essay upon the different possibilities of infection.

7. *Upon tuberculosis of the liver.* By Brissaud and Toupet.

This work treats of tuberculosis from a purely anatomico-pathological point of view. From their detailed account we gather that the attempt to recognize tubercle bacilli in the liver is frequently unsuccessful, because,

as they believe, the bile exerts an influence upon the coloration of the bacilli. In opposition to most other authors, they believe that the first tubercle is developed in the capsule of Glisson, and in the connective tissues associated with it, without having its point of origin in the portal vessels. Finally, they hold that there is also a specific, tuberculous cirrhosis of the liver, of a chronic inflammatory nature, without a proper tuberculous new formation.

8. *Upon pre-operative treatment.* By Verneuil.

To obviate evil results in operating upon persons in whom there is a localized tuberculosis, the author recommends the previous injection of iodoform, which has a deleterious influence upon the bacilli; and to administer daily thereafter to the patient from 5 to 15 cgr. of iodoform. When protected in this manner, evil results in his clinic very rarely occur.—*Allegemeine Med. Centrall-Zeitung*, July 2, 1887.

Aromatics and Bacteria.

The ancients, it is well known, used aromatics in much the same way as we now use powerful antiseptics. The late Mr. Rimmel devoted a considerable portion of his life to demonstrating that bodies of an aromatic character, such as essential oils, are antiseptics; and the views which he expressed are quite in accordance with those now accepted. M. Chamberland has recently reported upon the action of essential oils on the bacteria of charbon. Only 14 out of the 115 oils which he used had no effect on the bacillus, and oil of cloves was included in the number. Oil of cinnamon completely destroyed the germs in four days, whilst bacteridian germs placed in fresh yeast-water have been cultivated after having been for four days in contact with other oils. Cassia oil does not stop the development of filamentous bacteria, but oil of vespetro seems to kill it completely in eighteen hours. Placed in contact with carbuncle bacillus, or its germs, in solution, seven oils killed that bacterium. These oils were found to have about the same antiseptic power as sulphate of copper. Amongst these oils are cassia, cinnamon, and thyme oil, which, however, are only of full power when fresh and unoxidized. Experiments were also made with thymol; and summing up, M. Chamberland states that the most energetic antiseptics were corrosive sublimate and thymol. Sulphate and acetate of copper and bichromate of potash, although very active, allowed vegetations to grow; next to them in power were cassia oil, persulphate of iron, carbolic acid, alum, and sulphate of quinine. Boric acid, hyposulphite of soda, salicylate of soda, arseniate of potash, bisulphite of soda, chloride of alumina, and chloride of lime, are comparatively weak antiseptics.—*Chemist and Druggist.*

Palpation of Lymphatic Glands.

At the instance of Penzoldt, Dietrich investigated the number and size of the lymph glands that were normally palpable in four hundred and thirty-nine healthy soldiers and pupils. In this examination were included the glands of the occipital, cervical (cervical and supra-clavicular), axillary, cubital and inguinal regions. He found that nearly all healthy persons have some region or other in which the lymph glands are normally palpable, and that the most common region is the inguinal, in which they are found in 92.9 per cent.; next they are most frequently found in the cubital region (82.6 per cent.); then in the neck (79.4 per cent.); and least frequently in the occipital region (2.2 per cent.). As to the average number of palpable glands, it is greatest where the most lymph glands lie, that is to say, in the inguinal region; then follow in decreasing ratio the neck, axillary, cubital and occipital regions. Children have a higher percentage of palpable lymph glands than adults. The average number of glands decreases in general with advancing age; this is most strikingly seen in the neck. The average size in different regions of the body is about the same at all ages, namely, that of a lentil or bean. In fifty persons with florid secondary syphilis, the percentage of the whole number of palpable lymph glands as compared with the healthy, showed an increase in the average number and in the average volume of the glands, and this increase was especially marked in the cervical and inguinal glands. On the other hand, a general glandular swelling was not constantly found in syphilitics, though the cubital glands in number and in size were more marked than in the healthy. In sixty-nine adult patients with diphtheria an average increase in the swelling of the cervical glands was established, though this was wanting in children (perhaps accidentally; the submaxillary glands were not considered). General glandular swelling in diphtheria at least, is by no means regularly present.—*Centrallblatt f. d. med. Wissensch.*, July 9, 1887.

How to Make Sponges Antiseptic.

Upon this subject, Bernbeck writes as follows: "Select sponges of moderate porosity; if they are too fine it is difficult to free them from sand and lime. Next, dry them, and free them from the coarser sand by repeated beating with canes. After this, place them upon a coarse hair-sieve, and wash them until the last water runs off absolutely clear and free of sediment. When this has been accomplished, soak the sponges for about two hours in a solution of potassium permanganate 1–1000, and then add crude hydrochloric acid until the violet color entirely disappears. This manipulation presents three advantages: while the sponges are disinfected, they are also bleached through the formation of free chlorine out of potassium permanganate and hydrochloric acid; and finally the residue of the lime, which often clings with great tenacity to the sponge, is dissolved by the excess of hydrochloric acid, and thus easily removed.

Sebsequently, the sponges are repeatedly washed with water until the latter no longer reddens litmus paper.—*Deutsche Medizinal-Zeitung*, July 14, 1887.

Adulteration of Morphine.

J. Geo. Spenzer, of Cleveland, describes the results of analysis of a sample of morphine, as follows: This morphine, of foreign make, was offered for sale at a very low figure, but was represented to be quite pure. Its solution was, however, repeatedly complained of as producing excessive irritation when used by the hypodermic method. It was observed that the solution, although at first apparently clear, would throw down a precipitate. On examination this proved to be sulphate of calcium. Other samples of morphine sulphate were examined, some of which also showed the presence of this same impurity, but this could hardly account for the irritating effects produced by the solution. The other specimens were all strictly neutral in their reaction; this, however, was distinctly acid, and it was apparently the excess of acid which rendered it irritating. —*Western Druggist*, July, 1887.

Transplantation by Exchange.

Mr. C. B. Keetley, surgeon to the West London Hospital, reports an operation which he calls "transplantation by exchange." The operation was performed on a child with a very large mole on the face, and consisted of the reflection of a flap from the child's arm upon the face, and the implantation of the mole on the arm, to prevent excessive cicatricial contraction interfering with motion.

The flap from the face was left attached by its inferior; that on the arm by its superior border. The two were then rotated into position and secured there by sutures; the arm having been brought close to the face for that purpose. A plaster-of-Paris bandage was then applied, so as to keep the arm close to the face and at rest. Both flaps lived, having been severed from their bases on the twelfth day. Nine months after the operation the result was announced as being quite satisfactory.

Dioscorine in Hepatic Colic.

A judge of one of our highest courts was reduced to the verge of the grave with frequent attacks of that excruciating malady, *hepatic colic*. He had the best medical advice that Georgia could give; he vainly sought distant watering-places and other physicians; he was a wreck; gave up his business and lost hope. He was advised to take fluid ext. wild yam—dioscorine—by some one, and never after did he have an attack. I do not mean that one dose cured him, but that from the beginning of its use dated the end of his trouble. He is now one of the finest specimens of the physical man that you meet in our city of healthfulness. He imparted this information to me five years ago. My success with the remedy in hepatic colic has been simply all that I expected or desired. It heightens the pain-relieving power of opium during the attacks and prevents their return when the remedy is continued. I will not worry you with details, but affirm that I have cured cases where parties had suffered for years with oft-repeated attacks. —Dr. J. S. Todd, *Atlanta Medical and Surgical Journal.*

A Peculiar Case of Iodism.

This interesting case is reported from the Clinic of Von Ziemssen: A factory hand, twenty-four years old, suffering from chronic lead poisoning, was taking iodide of potash, and instead of the coryza and salivation customary in iodism, a diminution of the saliva, accompanied by enormous swelling of the parotid glands asserted itself. The voice was harsh and barking, the radial pulse 130 and scarcely perceptible, urine scanty and containing many white and red blood corpuscles, and later, also, free hæmoglobin.—Rieder, *Centrallblatt f. d. Med. Wissensch.*

CORRESPONDENCE.

Ruptured Perineum.

After some experience in the suturing and non-suturing methods of treatment of ruptured perineums, I read a short paper on the subject before the Indiana State Medical Society a few years ago, in which I favored the latter method, keeping the patient on her right and left side alternately, her genitalia clean and her knees together.

I referred to a number of cases thus successfully treated, in one of which the laceration was so extensive that it was impossible for the patient to retain her fæces. I asserted that in all cases where sutures succeed in effecting a speedy union of the severed parts, nature would likewise succeed if proper care and cleanliness were exercised. My paper was surprisingly well received by the society, but at the following meeting a year later; was vigorously attacked by a leading gynecologist of Indianapolis, who considered it criminal to allow a ruptured perineum to remain unsutured, and that in every case, if properly done, immediate union will result.

The time which has elapsed since my paper was read has served but to strengthen me in the position then taken. Subsequent cases have not only strongly fortified it, but one of them has entirely negatived the proposition of my antagonist, that "in every case if properly sutured, immediate union will result." The case to which I refer was a German woman in the City Hospital, Fort Wayne, unmarried, aged 35 years, whose first stage of labor began Wednesday, February 23, 1887. On the following Sunday, the 27, after an hour's manipulation with my hands alternately employed, I succeeded in making room sufficient in which to apply the forceps, when I delivered her of a child, still born, weighing ten pounds, rupturing her perineum throughout more than half its entire extent, which I *immediately* closed "properly" with three deep sutures, before she recovered from the effects of the chloroform. Not a particle of union occurred and the sutures were removed in four days when septicæmia threatened. In this case neither method would have been successful because her general system was at fault. She requires constitutional treatment before the parts are revivified, after which, if her condition is right, either method will prove successful if "properly" attended to. Dr. Hamilton, of New York, in a paper contributed to the *Journal of the American Medical Association* three years after my own was read as above mentioned, supports me fully in the position I take upon this important practical question.

DR. H. V. SWERINGEN.
Fort Wayne, Indiana.

Medical Epitaphs.

EDS. MED. AND SURG. REPORTER:

Sirs: I brought home with me from England, the other day, these epitaphs, which may interest you. I never saw them published.

J. M. KEATING.

In Bunhillfield's Cemetery, London:

"Here lyes Dame Mary Page, Relict of Sir Gregory Page, Baronet.

She departed this life March 11, 1728, in the 56th year of her age.

In 67 months she was tapped 66 times. Had taken away from her 240 gallons of water without ever repining at her case or fearing the operation."

From a tombstone in the cemetery at Winchester, England:

"In memory of —— who died of a violent fever contracted by drinking small beer when hot. May, 1764. Aged 26.

Here sleeps in peace a Hampshire Grenadier,
Who caught his death by drinking cold small beer.
Soldiers, be wise from his untimely fall,
And when ye're hot drink strong or na't all.
An honest soldier never is forgot,
Whether he die by gunshot or by pot.

[Epitaphs *per se* are, of course, painfully out of place in a journal devoted to the science of cure; but those above given are too edifying in matters of causation and symtomatology to be omitted.—EDITORS OF THE REPORTER.]

Country Practice in Texas.

MEDICATED BOUGIES.

Some time ago I was treating a case of enlarged prostate and wished to introduce cocaine directly to the irritable membranous portion of the urethra, and keep it there. I tried the porte-caustique and bougies, made of coca butter, etc. At last I thought of the ordinary tallow candle; selected a tube of proper size and length, pulled a wick through it made of several threads of silk twist. I then melted in a test tube, oil of theobroma, medicated to suit the case, pouring it into the tube, so as to have the medicated portion just where I wanted it. The tube is then held a few moments in ice water until the oil hardens. Now rub gently through the fingers and the oil next the tube softens.

When the candle is drawn out, again insert it in ice water and it immediately hardens, and you have a medicated bougie, manufactured in less time than I can describe it, at a nominal cost. I always prepare them at the bed-side, and have used them in all cases of gonorrhœa, stricture, diseased prostate; in fact, wherever I wish to keep the diseased surfaces apart, or introduce remedial agents into cavities, sinuses, etc.

GRASS LINE FOR LIGATURES.

In two cases of ovariotomy I recently performed, I was at a loss what to use to ligate the pedicle. On other occasions I had used silk, but the only samples I could now procure were the iron-dyed, and so brittle, I could not safely rely on them. I chanced to examine some fine grass lines, *i. e.*, fish lines, very fine, yet exceedingly strong, which I used in ligating the pedicle. In the last case I removed both ovaries, using the grass line ligature. My patient made an excellent recovery, the highest temperature being 99¾°, and was quite well in twelve days. I don't know what the grass fish line is made from, but it is certainly the best material for ligatures I ever saw. I enclose herewith a specimen, and would like very much to know how it is made. ARTHUR E. SPOHN.

Corpus Christi, Texas.

[The tackle dealers state that this line is known as West India Islands grass line.—EDITORS OF THE REPORTER.]

Gonorrhœa.

EDS. MED. AND SURG. REPORTER:

Sirs:—Having lately a rather unique case, or rather having uniquely treated a case of gonorrhœa, I beg to offer the same for publication:

D. D. called on me with a well-developed case of this disease in its first stage. Judging him to be of a scrofulous nature I gave him internally grs. v iodide potash, and gtts. v Fowler's solution daily. For local use as an injection, aqua ʒ iv., acid carbolic gtts xx, to be used twice daily after carefully cleansing the urethra with clear water. He returned in three or four days practically cured.

JAMES BATES, M. D.

Warren, O., Aug. 8, 1887.

Large Doses of Morphia.

EDS. MED. AND SURG. REPORTER:

Sirs:—Your note of the 3d inst. at hand. There was no slip of the pen nor mistake in saying that during 12 days she took one grain of morph. sulph. every half hour, making 576 grains in that time. [See REPORTER, Aug. 13, 1887, p. 227.] She then took one grain every hour for a few days, and as the inflammation declined the interval between doses was increased until she only took one capsule per day, but the amount was kept 1 gr.

I talked with her husband to-day, and he says at no time was she narcotized, and generally was calling for her medicine by the time the half hour was up. The pain was excessive. She was convalescent by the last of January, and her husband says to-day she is able to do as much work as any woman in the city. Yours truly, A. ADY.

Muscatine, Iowa, Aug. 6, 1887.

Purpura.

Editors MED. AND SURG. REPORTER:

Sirs:—In the REPORTER for August 6th, Dr. E. T. Blackwell, of Cedarville, N. J., refrering to my report of a case in REPORTER of July 23d, speaks as if such cases were of common occurrence; but as there stated, "I have never seen nor read of a case similar to my own."

Dr. Arthur Van Harlingen, of Philadelphia, says: "Purpura consists in the development of variously sized and shaped non-elevated or raised, smooth, reddish, hemorrhagic patches characterized by not disappearing under pressure."—(*Holmes' Surgery*, vol. 3, p. 462.)

Drs. Thomas Hillier and Tilbury Fox, of London, Eng., in an article on Purpura say, that "*the discolored spots are not themselves raised*," (italics mine,) but under the heading of *purpura urticans* they say, "it is characterized by rounded and reddish *elevations* of the cuticle resembling wheals, *but which are not accompanied* like the wheals of urticaria *by any sensation of itching or tingling*," (italics mine)—(See *Reynolds' System of Medicine*, vol 1, p. 460). In the same article, on page 463, they refer to a case marked by slight elevation reported by MM. Barthez and Rilliet; those authors, however, considered it to be a case of *erythema* complicated with extravasation into the cutis. See also case reported by Ollivier, same page. In Prof. Austin Flint's description, the whole consideration of the case is summed up in less than two pages of his excellent work on "Practice;" while I do not find anything in the article which would lead one to expect elevation of the spots above the surrounding surface. It was in this particular symptom that I thought the case unusual.

Now, as to the term "cerebral pneumonia." In my MS., I wrote: "I considered the case to be what an editorial in the *Therapeutic Gazette* for January, 1887, terms 'cerebral pneumonia.'" Dr. Blackwell will thus see that I have the authority of so advanced a writer as Dr. H. C. Wood or of R. M. Smith, the editors of that journal, and had my article come out as written, it would have saved me the blame of burdening our medical nomenclature with another name. The first ℞ in my article of July 23d should read as follows:

℞ Tr. ferri chlor.....ʒ ij instead of ʒ j
Liq. potas. arsen.....ʒ ss " ʒ js
Aquæ q. s. ad.....ʒ j

Hoping to hear from Dr. B. with reports of many cases through the columns of the REPORTER, I remain, fraternally yours,

A. A. NEFE, M. D.

Whetstone, Iowa.

Salol.

EDITORS MED. & SURG. REPORTER:

Sirs:—Will you kindly furnish through the REPORTER some information concerning *Salol?* If *antipyretic* as well as antiseptic what are the doses, and can it be given in *solution?* How would it do in solution with alcohol in a case of continued fever?

W. N. SHERMAN, M. D.

Kingman, Arizona.

[Salol is unlike most of the other derivatives of coal tar in that it is made by the combination of carbolic and salicylic acid. For this reason it is sometimes called salicylate of phenol. It was first recommended as a medicinal agent by Sahli, of Berne, and his paper has been followed by several others of an exhaustive character, notably by that of Georgi.

Naturally it has been found of benefit in rheumatism in the dose of 15 or 20 grains in capsules, or in pills of from 3–5 grains. It possesses according to Georgi marked antiseptic power; and two French observers, MM. Perrin and Potain, have lately published reports of surgical cases where rapid healing took place under its use as an anti septic. This in a case of finger amputation, with a salol dressing, healing took place by first intention.

It is better in his opinion than iodoform for several reasons, although it is used in the same manner. It is also recommended by some of the German writers in the form of a wash in leucorrhœa with fetid discharge and also in erysipelatous inflammations. Some of the physicians who have used it think it a good antipyretic in dose of 5–15 grains.

This last power, however, has not as yet been proved to exist. Its advantages over salicylic acid and the other salicylates is, that it is not so apt to disorder the stomach since it is absorbed in the intestine, at least this is Georgi's theory. As a dressing it lacks the strong and disagreeable odor of carbolic acid or iodoform. The reports are so far so favorable as to warrant it a further trial. Recently Dr. A. H. Goelet has highly recommended its use in doses of one grain every two hours, coupled with ice water enemata, in diarrhœas of children. He gives it dry upon the tongue. His results justify a further trial.—EDITORS OF THE REPORTER.]

NEWS AND MISCELLANY.

The Value of a Life.

The courts as a rule, fix the value of a person killed by a railroad at $5,000, but vital statisticians place the value of an adult person to the State at $750, and the annual productive power at $95. One-half of all deaths occur during the productive age. The total annual deaths in the United States during this age is 200,000, therefore creating a loss of $150,000,000. There are, also, 1,500,000 persons sick all the time in the United States, causing a loss of $142,500,000.

A large per cent. of deaths is caused by preventable diseases. In view of this fact, can any reasonable person object to any legislation which will tend to secure a reduction of so costly a sacrifice? State and local boards of health are created to this end, but their work must be supplemented by the co-operation of the people.

The relative market value of the different parts of the human body has been calculated by a German mathematician with a view to fix a basis for the award of damages in case of disablement. The loss of both eyes, arms, legs, hands or feet, is put at 100, that of the right hand at 60, of a foot at 50, of the left hand at 40, the right thumb at 33⅓, an eye at 22, the left thumb or right forefinger at 14, the left forefinger at 8, and any other finger of the left hand at 4 per cent.

Dr. Hiram Corson.

Dr. Mary Willits gives the following pleasant description of a visit to Dr. Hiram Corson:

A few evenings ago, in company with some medical friends, I called upon a prominent member of the profession. After a long drive over rough country roads, past many farm-houses nestled among the trees, we turned into a drive which led us to a large, comfortable stone house situated in the midst of a level lawn across which several large trees threw their shadows. As the carriage stopped, we were met by a man rather above the medium height, spare in person, with snow-white beard and hair, who beamed a kindly welcome through his spectacles when he greeted us and presented us to his wife, whose welcome was not less warm as she led us indoors.

An ideal host we found him, engaging each one in conversation separately for a few minutes, making that one feel, for the time being, that no other guest was present, and then causing the conversation to become general, leading it into channels interesting to all of us.

I speak of Dr. Hiram Corson, of Plymouth Meeting, Montgomery County, Pa., who, although he will be eighty-three years old in October, is in vigorous mental and physical condition, bidding fair to render service to humanity for some years to come; as he is still in active practice, but rarely goes out at night, as his wife informed one of our party.

A little distance from the house is "the office," a frame building with one room, on one side of which are shelves, almost from floor to ceiling, well filled with books and bottles of drugs, the latter being a necessary part of a country physician's armamentarium. A table in front of one of the windows was covered with manuscript, and the doctor informed us that he was writing a paper on the use of "Cold Applications in Inflammation." Every one knows what an advocate of this treatment he is. Scarcely were we seated in the parlor before he asked one of our number if he had ever used "cold." This led to a general discussion on the subject, and Dr. Corson spoke of its being so superior to poultices in pneumonia. Upon being asked *how* he applied it, his reply was: "I take a bladder, or rubber ice-bag, fill it about half full of water and then put in pieces of ice; to put in pieces of ice alone makes an uneven surface, which is not readily applied to the chest."

He has used cold applications in many diseases—in scarlatina to reduce the temperature and allay the throat symptoms. He has observed in this disease that if the cerebral symptoms were well marked the throat symptoms were not so prominent. He thinks the reason for this is that, when the cerebrum is much affected, the whole nervous system is affected and the glandular system is less apt to become involved.

An article of his, on the use of "Cimicifuga in Chorea," which appeared in the MEDICAL AND SURGICAL REPORTER a few months ago, was mentioned, and he was questioned as to the dose and preparation. He uses the infusion, giving a teaspoonful three times a day, gathering the root in the early autumn and preparing it himself, thus being sure of a *reliable* preparation. Two other articles of his which have recently been published—"Sumach in Stomatitis" and "Quinine in Pneumonia," both in the same journal as the preceding—were mentioned and discussed at some length. And so one subject after another was brought up, and we all listened eagerly to the opinions of a man who for nearly sixty years has been practicing medicine in this quiet country place, and for more than half that time has been an acknowledged leader in the profession, clearly demonstrating that prominence and great intellectual development are not confined to those who dwell in the city, boast as we will of its superior advantages.—*N. Y. Med. Journ.*, August 6, 1887.

The Element of Truth in Popular Beliefs.

Dr. T. Lauder Brunton recently gave a lecture on the subject quoted above before the Royal Institute of Great Britain. The following is an abstract of his lecture:—

The common saying "Seeing is believing" gives a clue to the origin of many popular delusions, for the evidence of our eyes is by no means to be trusted, and unless corrected by the observations derived from other senses will often prove deceptive. Some popular beliefs are correct in regard to fact, but erroneous in regard to interpretation. Some others, which in their present form are absurd, are the survivals or modifications of other beliefs which were true.

In endeavoring to discover the element of truth in many belief we may be aided by tracing its history backwards in time, or by comparing it with allied forms of belief in different places.

As an example of the historical method we may take the belief that horse-flesh is unfit for food, a delusion which arose from the circumstance that horse-flesh was unfit

for Christian food, inasmuch as the horse was sacred to Odin, and eating its flesh was a sign of paganism.

As an illustration of the comparative method we may take the belief that a person cannot die if any door in the house be locked. Other forms of the belief are that a person cannot die as long as the doors or windows of the room in which he is lying are closed, and observation enables us to ascertain that this is due to the fact that the room is thus kept warm, and life therefore prolonged.

The belief that disease may be cured by hanging up rags in a sacred place may be connected by intermediate forms with the fact that infectious diseases may be conveyed from one to another by articles of clothing.

Some omens probably have an historical origin. Others depend on physical conditions, such as stumbling on leaving the threshold as an indication of coming misfortune. This may be regarded as simply an evidence of a deficiency in the motor power of the individual which may cause him to fail in an emergency.

Others again may be referred to indistinct sensations or subconscious conditions. Dreams are frequently influenced by the circumstances of the dreamer, either at the time or some days before, and hallucinations as well as visions of ghosts and fairies may be regarded as forms of waking dreams. The signs which were regarded in the Middle Ages as distinctive of witchcraft are now looked upon as symptoms of hysteria, and the condition of hysteria may perhaps be defined to be one in which impressions originating within the body itself tend to overpower those transmitted from without by the usual sensory channels.

The phenomena of thought reading and of the divining rod may in many cases be explained by the fact that sensory impressions may be received and may lead to action without rising into complete consciousness in the individual who receives them.

A Pessimistic View of American Medical Literature.

The country that has a Fourth of July, a Declaration of Independence, and an American Eagle, the country that gave birth to the telegraph and the telephone and stump oratory, can afford to have more medical journals than all the world besides; but it is questionable whether the immature observations and hasty conclusions that characterize the great mass of literature will redound to the power and glory of American medicine. A fog of uncondensed experiences hovers over our consciousness like an atmosphere of uncombined gases. The sanguine and imaginative rush into print with their hopes and impressions. We are periodically startled by new theories and new remedies, or new virtues in old remedies; but it turns out at last that a will-o'-the-wisp flitting over a bog has been mistaken for a beacon light upon a hill. But shall we not record facts? Certainly, but first ascertain that you have one. Fact! that omnipotent monosyllable, has been the patrimony of cheats, and the currency of dupes from time immemorial. Facts have furnished the basis of the most stupendous delusions of medical history. The miracles of the Temples of Æsculapius, the cures wrought by the metallic tractors of Perkins, the Royal touch, Bishop Berkeley's tar water, homœopathy and mind-cure have all been sanctified by an irresistible array of stubborn *facts*. The focal adjustment of each individual is arranged to a different scale—no two ever look at the same object at exactly the same mental angle, and the faculty of correct observation, and the power of grasping a complex subject, articulating it distinctly and of treating it not only with effect, but luminously in its widest bearings and in its most intricate details, is the rarest and most exalted attainment of the mind.—Dr. W. S. Thorne, in the *The Pacific Medical and Surgical Journal.*

The Mortality of Physicians.

According to the experience of the life insurance company of Gotha, out of the whole number insured, there was a mortality of 11.53 per cent. Infectious diseases, diseases of the lungs, and apoplexy preponderated. Of the infectious diseases, typhus carried off a part of the younger physicians. Of ten hundred and fifty-two deaths, there was only one from poisoning by a dissecting wound, but nine other cases of blood poisoning; eight of erysipelas, one hundred and fifteen of typhus, fourteen by suicide, and four of melancholia.—*Deutsche Medizinal-Zeitung*, June 20, 1887.

A Solvent for Antifebrin.

Dr. Proegler, of Fort Wayne, Ind., states that he has used the aromatic spirits of ammonia as a solvent for antifebrin, and has found it very good for that purpose. It was suggested to him by Mr. Louis Schmidt, a pharmacist of that city.

Clairvoyante Diagnosis.

A physician in this city recently had under his care a case of typhoid fever. As the patient did not progress very rapidly toward recovery an officious relative consulted a notorious clairvoyante regarding the patient. She affected the usual "trance state" and gave the following curious diagnosis which was copied by her daughter, who acts as amenuensis: "As I examine your case I find the membrane of the head has a watery fluid secreted in the membrane, which produces a sort of confusion and a roaring at the ears. The blood seems to loose its force of blood as it reaches the base of brain. this is caused by the strings of the kidneys drawing on the spinal nerves. this also is the cause of pain about the shoulder. I find both kidneys have been strained and the casings swell. I find the liver congested and filled with slime. this at times passes to the stomach, windpipe, left lung and throat. The left lung settles on casing of heart. I find a watery fluid between the heart and casing which causes the right ventricle and centre valve to be weak. The cough is caused by the left lung settling on the stomach. The stomach I find has been weakened by medicine, and I find a sort of white powder secreted in the casing of stomach and membrane of bowels, which is the effect of medicine. I find a little difficulty with bladder. I find a catching pain from hip to knee which has been caused from kidneys. I find the blood in a stagnant state, and the blood only quivers through the limbs.

"Take No. 5 with 10 Stomach Drops 5 times a day, and Tea of Sweet Balm and Poor Robin's Plantain."

As the clairvoyante had described only one symptom—the cough—in the case, the prescription was turned over to the attending physician.—*Buffalo Med. and Surg. Journal.*

Scarlet Fever in a Horse.

A case of scarlet fever in a horse is reported from Mechanicsville, Cedar county. If the attending veterinary surgeon is correct in his diagnosis, the case is a remarkable one. We hope to give the facts in the August *Bulletin*. That the disease exists in cattle has been demonstrated in London, England, where a herd of dairy cattle were infected for nearly two years, causing a large number of deaths of children and adult persons, from using the milk. The entire herd was destroyed and there was no further appearance of the disease.—*Bulletin Iowa State Board of Health*, July 15th, 1887.

One Point of View.

At the last meeting of the Orange County (N. Y.) Medical Society, Dr. Pillsbury, chairman of the nominating committee, was interrogated as to the omission of a delegate to the American Medical Association upon the ticket, whereupon he replied:

"The Society formerly sent a delegate to the American Medical Association. The American Medical Association no longer recognizes us as members of the profession under its code. The great State of New York is thus practically without representation in the National council. I think we are justified in emphasizing the remark—so much the worse for the National council. We trust the loss may be sanctified to them for their medical and spiritual good, and that when those who are too old to learn have slept with the other grandfathers of medicine, and those who grow up find wisdom, they may not be too proud to acknowledge and confess to the end that they may obtain forgiveness for the sins and follies of their youth. And what is the matter with us? The New York State Medical Society, and the societies in affiliation therewith, have declared their willingness to clasp hands with all physicians whose learning and good repute obviously entitle them to the recognition demanded by the country in this age so famously enlightened."

Tannin Test for Drinking Water.

Dr. Hager, in 1871, used a clear solution of tannin. Pour a tablespoonful of the solution into a tumblerful of the suspected water. If no turbidity occurs within five hours the water is good, if turpidity occur within one hour the water is decidedly unwholesome.

Colleges in Good Standing.

At the quarterly meeting of the Illinois State Board of Health, held July 8th, 1887, the following resolution, offered by Dr. Clark, of the board, was adopted: *Resolved*, That the phrase, "medical colleges in good standing," in the first section of the Act to Regulate the Practice of Medicine, approved June 16, 1887, is hereby defined to include only those colleges which shall, after the sessions of 1890–91, require four years of professional study, including any time spent with a preceptor, and three regular courses of lectures, as conditions of graduation, and shall otherwise conform to the Schedule of Minimum Requirements heretofore adopted by the board.

"Ode to Bacillus."

Oh, powerful Bacillus,
With wonder how you fill us,
Every day!
While medical detectives,
With powerful objectives,
Watch you play.

In epidemic glanders,
In certain forms of "janders,"
You delight.
E'en to the fifteenth culture,
Voracious as a vulture,
You can bite.

Koch and Spina growing splenic,
O'er your power so septicæmic,
Rant and roar.
Schmidt says when pus grows rotten,
Only then you are begotten,
Not before.

In lung tuberculosis,
In skin necrobiosis,
How you squirm.
While gonorrhœal burning,
Is caused by sporules turning,
Some affirm.

'Tis said a crypto-coccus
Will very often choke us,
If we fail
To drop the acid phenic—
Which is antisepticæmic,—
On its tail.

Freire says in fever, yellow,
He finds a little fellow
Breeding pest.
Gregg swears, do what he will, he
Sees nothing but fibrilli,
By his test.

In atmosphere mephitic,
In poison diphtheritic,
How you revel!
In earth and air and ocean,
You keep disease in motion,
Like a devil.

But Bacillus, Oh! Bacillus,
You try in vain to kill us,
Yet we thrive.
And though you try to blind us,
Yet, next year I hope you'll find us
Quite alive. —*Unknown Poet.*

Effect of the Hot Weather in Brooklyn.

Dr. Young, Registrar of Vital Statistics, of Brooklyn, speaking of the heavy mortality there in one week recently, chiefly from the oppressive heat, says, out of a total of 564 deaths, 373 were children under five years of age, and of these 91 had not passed their first year. Two hundred died of diarrhœal complaints. The mortality for the week was at the rate of 38.82 per annum out of every 1000 of the population. Last year it was 33.34. The Doctor also says: "There are few who have any idea of the suffering of people who live in these tenement houses during this fearful weather. It is hard to blame them for sleeping on fire escapes and the roofs, when their small rooms, in which perhaps washing and ironing are daily occupations, are veritable ovens."

Unwholesome Milk.

A large share of the mortality from diarrhœal affections must be attributed to the use of unhealthy milk. In Holland, she asses are driven about the streets and milked before the houses where bottle-fed infants are found. It is said that the mortality among children thus nourished is exceedingly low. Competent authorities state that next to the milk of the mother, that of the ass is the best adopted to the infantile digestive organs. But asses' milk is not obtainable here, and even in Paris it brings $1.50 per quart. We are accordingly obliged in cities to content ourselves with milk which is supposed to have been derived from the cow. It is absolutely impossible to obtain fresh milk, and we are extremely fortunate if we can procure that which has not undergone partial decomposition.—*Dr. Campbell, in Buffalo Medical and Surgical Journal, July, 1887.*

What is Pain?

We all know what pain is, says the *Popular Science News*, but to give a scientific definition of it has taxed the brains of lexicographers and encyclopædists. An eminent physiologist calls it "an excess of the sense of touch;" and another "hyperæsthesia of the sensory fibres." Dunglison, in his Medical Dictionary, says it is a disagreeable sensation, which scarcely admits of definition;" and Gardner, in his work of the same title, under "Pain," says "See Dolor;" and, turning to "Dolor," we find it concisely explained as "pain." The great French Dictionnaire des Sciences Médicales coolly and conveniently tells us that to define it is superflous. Professor Erb, in Ziemssen's Cyclopœdia, after some discussion, comes to the conclusion that pain is a new sensation, experienced when excitation of the nerves reaches a certain intensity." Perhaps the Imperial Dictionary covers the ground in describing it as "an uneasy sensation in animal bodies, of any degree from slight uneasiness to extreme distress or torture, proceeding from pressure, tension, or spasm, separation of parts by violence, or any derangement of functions."

Contraindications of Nitro-glycerine.

When headache and neuralgia occur in patients with chronic congestion of the subcutaneous veins of the face, nitro-glycerine is to be avoided; and similarly it is of no use in asthma, when the face is reddened in consequence of emphysema. If however, a pale face exists with angina pectoris, migraine, giddiness, shock, toothache, or seasickness, the best results may be looked for by giving nitro-glycerine.—*Lancet.*

Never Ask How Much.

"Take my advice, and when you get a prescription put up at a drug store never ask how much it is," said one gentleman to another the other day. "Why not?" he was asked. "Because the clerk will 'size you up,' as the boys say, guess how much money you have got, and charge you your pile." "What do you advise?" "Just this. When the urbane compounder of medicines hands forth your prescription, just look wise and lay down a quarter. Now the chances are that the drugs in the preparation don't cost over a dime. He will look at the quarter, study a minute, and then make up his mind that he has been foolish enough to sell you the same dose for 25 cents at some past time, and he'll take it and not say a word. Lay down a dollar, however, and it will be just the same—no change. Try it and see."

Items.

—The Arab who invented alcohol died 900 years ago, but his spirit still lives.

—It has been discovered that chrome yellow is extensively used to color "noodles."

—A farmer sent $10 to a city advertiser for the best feed-cutter and got a $2 set of teeth.

—One hundred and sixty-five people died in Chicago, July 15, 16, and 17, from the effects of heat.

—One of the best things about Mr. Lawson Tait is that he declines to "talk shop" at dinner.

—An Austrian doctor advertises to pay one-half the funeral expenses in cases in which he is not successful.

—A printer up in Canada is said to be 103 years old. He has made so many typographical errors during his career that he is afraid to die.

—Fifty thousand tons of soot are taken from the chimneys of London annually. It is valued at two hundred thousand dollars, and is used for fertilizing purposes.

—To exterminate the rabbits, which have become a plague in Australia, it is proposed to propagate a contagious disease among them, and the experiment is to be first tried on Torren's Island.

—The number of insane patients committed to the Flatbush Asylum, New York, for three weeks of July was 56, and the total for the month is likely to reach 70, which is considerably in excess of the highest number of commitments for any one month in the history of the department. The physicians are disposed to impute the large increase to the protracted excessive heat.

—Two men have been arrested in Rochester, N.Y., on the charge of violating the revenue law in selling wine without a license. They testified that they sold to saloons about 100 gallons of a drink made by this recipe: Put about 16 gallons of water into a common wash-boiler, add 48 pounds of sugar, 1 pound of tartaric acid, and some analin dye for coloring. After stirring with a stick until dissolved, add a quantity of orris root, cut with a pint of alcohol, to give the flavor of raspberry wine. This stuff has been sold for more than a year as wine.

There have been no changes in the Medical Corps of the Navy for the week ending Aug. 13, 1887.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from Aug. 7, 1887, to Aug. 13, 1887:

Major J. C. McKee, Surgeon, ordered for duty at Watertown Arsenal, Mass. S. O. 101, A. G. O., Aug. 6, 1887.

Major H. E. Brown, Surgeon, sick leave extended to Aug. 6, 1887, on account of sickness. S. O. 184, A. G. O., Aug. 10, 1887.

Major P. J. A. Cleary, Surgeon, ordered to Ft. McDowell, A. T., instead of Ft. Assiniboine, M. T. S. O. 180, A. G. O., Aug. 5, 1887.

Capt. John M. Dixon, Asst. Surgeon, died Aug. 8, 1887, (station Ft. Mason, Cal.)

Capt. J. C. Morrill, Asst. Surgeon, ordered from Ft. Klamoth, Oregon, to Waterolist Arsenal, N. Y. S. O. 181, A. G. O., Aug. 6, 1887.

1st Lt. Wm. E. Hokpins, Asst. Surgeon, ordered from Angel Isl'd, Cal., to Ft. Mason, Cal. S. O. 104, A. G. O., Aug. 10, 1887.

1st Lt. C. N. B. Macauley, Asst. Surgeon, promoted to be Asst. Surgeon, with the rank of Captain, by operation of law, Aug. 10, 1887.

1st Lt. J. E. Pilsher, Asst. Surgeon, ordered from Ft. Monroe, Va., to Ft. Wood, N. Y. Harbor. S. O. 180, A. G. O., Aug. 5, 1887.

1st. Lt. C. S. G. Anderson, Asst. Surgeon, (station Whipple Bks., A. T.,) ordered to Ft. McDowell, A. T. S. O. 81, Dept. Aug. 3, 1887.

1st. Lt. Wm. A. Suter, Asst. Surgeon, ordered to return to Washington Bks., D. C., on the breaking up of the Camp at Creedmoor, N. Y. S. O. 166, Div. Atlantic, Aug. 10, 1887.